THE INFLUENCE OF AUTONOMY-SUPPORTIVE, STUDENT-CENTERED TEACHING ON STUDENT ENGAGEMENT: A MIXED-METHODS STUDY

by

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Abstract

Elementary school students in a Jewish day school are reporting significantly lower levels of engagement in their Judaic Studies learning than in their General Studies learning. The problem of Jewish day school students' limited engagement in Judaic Studies extends beyond the scope of this particular school context. Scholars and practitioners of Jewish education criticize the current approach to day school education as being focused on transmission of tradition, to the exclusion of a focus on cultivating a meaningful and personally relevant learning environment. Findings from a needs assessment suggest that teachers' predominantly traditional, teacher-centered instructional approach contributes to students' lower levels of engagement in Judaic Studies. This research investigates the influence of an autonomy-supportive and student-centered approach to teaching a unit of Bible on third and fourth-grade students' engagement in learning, skill development, and content knowledge. Results indicate that students in the treatment groups were significantly more engaged in learning than students in control groups at both intervals of testing. There were no increases in engagement over time within treatment or control groups. All students achieved equivalent levels of skill development and content knowledge. The research suggests the importance of designing Judaics instruction in an autonomy-supportive and student-centered approach.

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Committee Member: Dr. Ziva Hassenfeld

Dedication

This dissertation is dedicated to my grandfather, of blessed memory, Oscar Trencher, who believed deeply in the importance and power of Jewish education.

This dissertation is also dedicated to the three teachers who provide me daily with my most transformative educational experience: Orli, Maytal, and Dalia.

Acknowledgments

The accomplishment of writing this dissertation is due, in large part, to the many people who carried me through the past three years.

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My Orli-- Thank you for being your quirky and loving self and for always wanting to have fun. You have been keeping me on my toes since the day you were born, and I am blessed to be your Mommy.

My Maymay -- Thank you for your innocent wisdom, your nurturing nature, and your amazing attention to the details of life.

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But what is the true type of education?

It is like the art of the gardener under whose care

a thousand trees blossom and grow.

He contributes nothing to their actual growth;

the principle of growth lies in the trees themselves.

He plants and waters...

-Pestalozzi, 1818

Rav Nachman Bar Yitzchak said, "Why are words of Torah compared to wood (a tree), as it is said (Proverbs 3:18), 'It is a tree of life for them that hold on to it?' To say to you [that] just as [in the case of] wood, a small [piece of] wood kindles the large [one]; so too small Torah scholars sharpen the great ones." And this is that which Rabbi Chanina said, "I have learned a lot from my teachers, and from my friends more than from my teachers; but from my students more than all of them."

-Taanit 7a:12

EXECUTIVE SUMMARY

Low Engagement in Judaic Studies: A Problem of Disaffected Learning

Elementary school students at Kehillah Day School (KDS) report significantly lower levels of engagement in Judaic Studies learning than in General Studies learning (Weissman, 2017). Low levels of engagement in Judaic Studies may weaken students' skill development and content knowledge in Judaic Studies, can reflect an absence of enthusiasm about their Jewish practice and identity, and can deter the school's fulfillment of its mission (Janosz, 2012; Reyes, Brackett, Rivers, White, & Salovey, 2012). The problem of Jewish day school students' limited engagement in Judaic Studies extends beyond the scope of this particular school context. Scholars and practitioners of Jewish education criticize the current approach to day school education as being focused on transmission of tradition, to the exclusion of a focus on cultivating a meaningful and personally relevant learning environment (Goodman & Katzew, 2011; Krakowski, 2011; Woocher, 2012). The findings at KDS reflect the broader challenge of providing a Jewish day school education that authentically engages students in their Jewish learning and identity formation.

Defining Engagement, Disengagement, and Disaffection in Learning

Student engagement is a dynamic and interactional "meta-construct" (Fredricks, Blumenfeld, & Paris, 2004, p.60) that encompasses multiple dimensions of a student's active involvement and psychological investment in learning and achievement (Archambault & Dupéré, 2017; Saeed & Zyngier, 2012). Engagement and disengagement in learning are proximal processes that shape students' academic, emotional, and physical well-being and development (Bronfenbrenner, 1979; Skinner, Kindermann, Connell, &

Wellborn, 2009). The many factors contributing to a student's engagement or disengagement span the societal, familial, school, classroom, and individual contexts (Cai & Liem, 2017; Furrer, Skinner, & Pitzer, 2014; Scott, Hirn, & Alter, 2014). As children enter elementary school, the classroom context becomes the predominant influence in cultivating or limiting students' engagement with learning, and in this study's context of interest, encourages or discourages students' engagement with Judaic studies learning and religious identity development (Cohen-Malayev, Schachter, & Rich, 2014; Irvin, Meece, Byun, Farmer, & Hutchins, 2011). Within this microsystem**,** a teacher is the mediating force who initiates and regulates student motivation, or who undermines a child's active and enthusiastic investment in learning engagement (Brophy, 2013; Jang, Reeve, & Deci, 2010; Scott et al., 2014). The current study explores the interactional, individual, and school factors that contribute to a student's engagement or disaffection with learning (Park, Gunderson, Tsukayama, Levine, & Beilock, 2016; Patrick, Skinner, & Connell, 1993).

It is essential to understand the construct of *disaffection* as it relates to the constructs of engagement and disengagement. Skinner et al. (2009) argue that defining disengagement as the opposite of engagement leads to a misleading narrow view of disengagement as the absence of effort or persistence and the presence of apathy, passivity, and learned helplessness. The construct of disaffection, in contrast to disengagement, more broadly encompasses reactions and emotions that may come from a student's experience of boredom, coercion, exclusion, or helplessness. While a student's experience of disaffection may in fact lead to disengagement, it is possible that

disaffected students are being overlooked if they are not demonstrating the more extreme behaviors of disengagement.

Theoretical Framework

Theories of motivation and engagement offer various lenses to understand what drives a person to exert sustained effort, enthusiasm, and psychological investment in pursuing and accomplishing a task or goal. When applying theories of engagement and motivation to education, research explores both what drives students to sustain energized effort and psychological investment in their learning, and what teachers and schools can do to support this effort and investment (Anderman, Austin, & Johnson, 2002; Connell & Wellborn, 1990; McCormick & Plucker, 2013; Reeve & Halusic, 2009; Wigfield & Eccles, 2000). Self-determination theory (SDT) (Deci & Ryan, 1985; Ryan & Deci, 2000), the primary theoretical framework for the current study, proposes that human beings, throughout their entire lifetime, are naturally inclined to pursue their innate psychological needs of competence, autonomy, and relatedness. *Competence* is the degree to which a person is able to exercise their capacities, achieve an outcome, and thus feel successful (Ryan & Deci, 2013). *Autonomy* is the ability to initiate and regulate one's own actions by one's own volition (Ryan & Deci, 2013). *Relatedness* is the feeling of connectedness within a given social context, whereby a person feels fully and securely accepted by and connected to others. When the needs of competence, autonomy, and relatedness are fulfilled, human beings develop adaptively, feel intrinsically motivated, and engage optimally in achieving goals and sustaining positive relationships (Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Deci, 2000; Skinner et al., 2009).

Needs Assessment Findings: Teacher-Centered Instructional Practices

Findings from a needs assessment at KDS (Weissman, 2017) suggest that teachers' predominantly traditional, teacher-centered instructional approach contributes to students' lower levels of engagement in Judaic Studies. With research indicating that student's self-perceptions of competence, autonomy, and belonging in the classroom environment positively impact their engagement in learning, the question of what instructional practices and what types of learning environment mediate this relationship is critical to explore (Dupont, Galand, Nils, & Hospel, , 2014; Jang et al., 2010; Skinner et al., 2009). Research points to the significant disadvantages of a teacher-centered, controlling learning environment and to the positive outcomes of classroom environments with student-centered teaching and learning practices (Hood-Cattaneo, 2017; Lin-Siegler, Dweck, & Cohen, 2016; McCormick & Plucker, 2013).

Student-centered Learning Environments

A student-centered environment embodies a group of instructional strategies whereby students build their own learning experiences and "reconstruct knowledge dynamically in an open-ended learning environment" (Lee & Hannafin, 2016, p. 708). Implicit in this approach is the teacher's provision of autonomy-support, whereby a teacher listens to and considers student input, offers feedback that is informative in addition to summative and evaluative, designs challenging and relevant learning activities, and provides students with choice about the process or content of their learning (Cheon, Reeve, Lee, & Lee, 2018; Deci et al., 1991; Jang et al., 2010). Within an autonomy-supportive, student-centered (AS/SC) learning environment, a teacher functions as a facilitator and guide, rather than as an authoritative expert only providing

direct instruction. AS/SC teaching and learning is evidenced to increase student motivation, engagement, and attitudes towards learning, in addition to strengthening students' concept mastery, knowledge retention, and content transferability (Barron & Darling-Hammond, 2008; Hood-Cattaneo, 2017; Lattimer & Riordan, 2011; Taboada Barber, Buehl, & Beck, 2017; Whitlock & Brugar, 2017).

Although the research on best instructional practices in religious education is limited, literature supports a student-centered approach to religious education, while also recognizing the pull that exists between such a pedagogy and the authoritative discourse approach to religious education, where teachers prioritize the transmission of dogmatic religious knowledge to their students (Hassenfeld, 2017; Holtz; 2003; Hyde, 2010; Vermeer, 2012). This tension is present within the research on Jewish education, where scholars point to the importance of literacy and transmission of Jewish knowledge alongside the deeply embedded values of questioning and critique within the Jewish tradition (Hassenfeld, 2017; Holtz, 2003; Rosenak, 2003). Holtz (2003), one of the foremost scholars on the pedagogy of Jewish texts, argues that while Jewish educators are "deeply involved in the enterprise of cultural transmission" (p.37), and as such, are charged with the responsibility to transmit a body of knowledge and specific competencies to their students, they are simultaneously responsible for providing students with the experience of engaging and interacting with the ideas, concepts, and traditions they are teaching. The current study addresses this tension in considering the problem of comparatively low engagement in Judaic Studies as a result of teacher-centered, transmissive instruction.

Intervention

The author focused the intervention specifically on the Bible Studies component of the school's Judaic Studies curriculum. A teacher-centered, transmissive pedagogic approach whereby religious knowledge and content is authoritatively provided to students through direct, lecture-style instruction and through an emphasis on rote memorization limits students' perceptions of their competence and autonomy (Barron & Darling-Hammond, 2008). As such, any intervention to address the low levels of engagement in Judaic Studies will need to focus on designing a learning environment and instructional approach in Judaic Studies to foster students' sense of competence and autonomy. The current study involved the implementation of an AS/SC pedagogic approach to Judaic Studies. In focusing the intervention on Bible Studies, the author explored whether students' engagement as well as in skill development and content knowledge differed when learn a Bible unit through an AS/SC approach in comparison to a traditional, teacher-centered approach.

In the 2018-2019 school year, participating teachers in third and fourth-grade implemented a unit of their Bible curriculum through an AS/SC approach. The author utilized a mixed-methods embedded non-equivalent comparison group design, in which participating teachers and their students comprised the treatment group, and the non-participating teachers and students served as the control group (Newcomer, Hatry, & Wholey, 2010). At the conclusion of the intervention, students in control and treatment groups completed the same teacher-designed, standardized grade-level assessment to demonstrate their skill development and content knowledge. All student participants also completed the Engagement versus Disaffection in Learning, Student Report (Skinner,

Furrer, Marchand, & Kindermann, 2008) to measure their levels of engagement in learning Bible.

Major Conclusions

Findings indicate that students in the treatment group were significantly more engaged than students in the control group. There was no statistically significant difference in the levels of engagement within-subjects over time. Treatment groups reported significantly higher levels of emotional engagement at both pre-test and post-test and higher behavioral engagement and lower emotional disaffection at the post-test in comparison to the control group. Although the engagement trended downward overall during the intervention, an AS/SC approach may have sustained higher levels of behavioral and emotional engagement in the treatment group than what may have been if students had learned through a traditional, teacher-centered approach. Findings revealed that students in control and treatment groups did not differ in their levels of skill development and content knowledge as assessed at the end of the unit.

Recommendations

Based on the findings of the current study, it is worthwhile to consider the ways in which an AS/SC approach to instruction can benefit students, in particular, in Judaic Studies, who may otherwise continue to trend downward in their levels of engagement.

CHAPTER 1

Introduction

A foundational purpose of the Kehillah Day School (KDS), a Jewish coeducational K-12, is to foster students' deep commitment to and knowledge of Jewish practice, substantial Judaic literacy and Hebrew language fluency (School Mission Statement, 2016). These goals align with the overarching aims of the nearly 900 other Jewish day schools in the United States, which seek to provide a values-based dual-curriculum education to Jewish children, whereby students will develop a breadth and depth of Jewish knowledge along with the skills necessary to access Jewish texts and participate in Jewish ritual life (Hassenfeld, 2018; Krakowski, 2011; Rosenak, 2003; Schick, 2014). In offering both a secular and Judaic education, Jewish day schools in America foster students' identities as Americans and Jews. (Pomson, 2011).

Problem of Practice

Elementary school students at KDS report significantly lower levels of engagement in Judaic Studies learning than in General Studies learning (Weissman, 2017). Within this context, General Studies is taught during the first 60% of the school, and includes math, language arts, social studies, and science. Judaic Studies is taught in the latter 40% of the day, and includes instruction of Hebrew language, Bible, prayer, and Jewish holidays and culture. Low levels of engagement in Judaic Studies may weaken students' skill development and content knowledge in Judaic Studies, can reflect an absence of enthusiasm about their Jewish practice and identity, and can deter the school's fulfillment of its mission (Janosz, 2012; Reyes et al., 2012). The problem of Jewish day school students' limited engagement in Judaic Studies extends beyond the scope of this

particular school context. Scholars and practitioners of Jewish education criticize the current approach to day school education as being focused on transmission of tradition, to the exclusion of a focus on cultivating a meaningful and personally relevant learning environment (Goodman & Katzew, 2011; Krakowski, 2011; Woocher, 2012). The findings at KDS reflect the broader challenge of providing a Jewish day school education that authentically engages students in their Jewish learning and identity formation.

Goals of Jewish Day School Education

While it is not yet clear what particular factors are at play in engaging students in Jewish day school education specifically, there is a pervasive conversation within research literature on Jewish education calling for a paradigmatic shift in the philosophy and structure of Jewish education in America, to respond to the changing goals of Jewish education and to the questions of the purposes of a Jewish day school (Krakowski, 2011; Pomson, 2011; Woocher, 2012). The goals of Jewish education in the twentieth century, shaped largely by the mass immigration of Jews to the United States in the years preceding and following the Holocaust, sought to help American Jews assimilate into the fabric of American society while strengthening Jewish community and identity (Joselit, 2018; Woocher, 2012). Although many American Jews of the early twentieth century initially eschewed the notion of a separatist educational system, convinced that it would compromise their ability to fully integrate into American society, support for establishment of day schools increased in the years after World War II. The influx of Eastern European Jewish refugees, all of whom were accustomed to parochial models of education, the burgeoning societal conversation around cultural pluralism, and the new wave of Jewish educators who bore a refined air of professionalism, all paved the way for

the shift among American Jews towards championing a day school education as a means of sustaining collective Jewish identity while offering an substantive dual curriculum education (Joselit, 2018; Pomson, 2011).

Scholars now argue that the significant societal, cultural, and technological advances of the past century have made the goals of Jewish education in the twentieth century largely inapplicable and obsolete (Krakowski, 2011; Pomson, 2012; Woocher, 2012). Rather than focusing on Jewish continuity or a collective Jewish identity, the goals of Jewish education in the twenty-first century need to be meaning-focused to help American Jews use their Judaism as an avenue to find meaning, purpose, and fulfillment (Woocher, 2012). A focus on meaning-making rather than continuity aligns with what Woocher (2012) points to as the prosumerist culture of the first two decades of the twenty-first century, whereby people want to "exercise their right of choice by being active co-creators of the products they consume and the experiences they undertake" (p.186). The societal changes of the past two decades have reshaped American life so that networks are more influential than institutions, technology is a "disruptor and accelerant" (Woocher, 2012, p.186), and the speed of change and flow of information is constant. All of these cultural changes have contributed to the growing prosumerist mentality of Americans, with Jewish Americans as no exception.

The desire and expectation to have choice and involvement in creating the products one consumes and in shaping the lifestyles one experiences has seeped into general educational and Jewish educational contexts. American Jews are far more compelled to seek personal meaning in their Jewish identities than to engage with Judaism out of communal obligation and responsibility (Pew Research Center, 2013).

Woocher (2012) echoes the broader educational scholarship in his assertion that Jewish educators can no longer apply a transmissive pedagogical approach in an era where information is readily accessible without the presence of a teacher. Jewish educators must shift their focus from being the "givers of information" to being "meaning-makers" (p.202) and must respond to this prosumerist mentality by developing a religious educational experience which is interactive, premised on individual choice, relevance, and where students' curiosities drive the learning experience (Krakowski, 2012; Woocher, 2012).

Defining Engagement, Disengagement, and Disaffection in Learning

Student engagement is a dynamic and interactional "meta-construct" (Fredricks et al., p.60) that encompasses multiple dimensions of a student's active involvement and psychological investment in learning and achievement (Archambault & Dupéré, 2017; Connell & Wellborn, 1990; Saeed & Zyngier, 2012; Skinner et al., 2009b). A student's individual self-systems and self-processes, their school context, home context, and relationships with parents, teachers, and peers all influence the level and quality of engagement in learning (Jang et al., 2010; Lawson & Lawson, 2013; Skinner & Pitzer, 2012; Taboada Barber et al., 2017). Student engagement is predominantly categorized into behavioral, emotional and cognitive components that together represent students' observed and reported actions and feelings about learning and school (Archambault & Dupéré, 2017; Lawson & Lawson, 2013; Li & Lerner, 2011; Reschly & Christenson, 2012; Wang & Fredricks, 2014).

Differentiating Disaffection and Disengagement

While some of the scholarship on engagement starkly positions disengagement as the opposite of engagement, it is essential to understand the construct of *disaffection* as it relates to the constructs of engagement and disengagement. Skinner et al. (2009a) argue that defining disengagement as the opposite of engagement leads to a misleadingly narrow view of disengagement as the absence of effort or persistence and the presence of apathy, passivity, and learned helplessness. Drawing upon theories of Self-Determination (Deci & Ryan, 1985), Skinner et al. (2009a) present the idea that the construct of disaffection, in contrast to disengagement, more broadly encompasses reactions and emotions that may come from a student's experience of boredom, coercion, exclusion, or helplessness. While a student's experience of disaffection may in fact lead to disengagement, it is possible that disaffected students are being overlooked if they are not demonstrating the more extreme behaviors of disengagement. This study utilizes Skinner et al.'s (2009a) motivational conceptualization of engagement and disaffection as the guiding definitional framework of engagement (see table 1).

Student Behavioral Engagement and Disaffection

Behavioral engagement refers to the observable behaviors that indicate a student's active interest and involvement in learning. These behaviors include attendance, initiation of tasks, participation in classroom lessons and activities, on-task behaviors, adherence to classroom rules, persistence towards a task, and observed effort (Furlong & Christenson, 2008; Fredricks et al., 2004; Skinner et al., 2009a). In contrast, behavioral disaffection is characterized by passivity, apathy, procrastination, and abandonment (Skinner et al., 2009a). Behavioral disengagement is the dimension most predictive of school misconduct

and dropping out of school (Archambault, Janosz, Fallu, & Pagani, 2009; Hirschfield & Gasper, 2011).

Student Emotional Engagement and Disaffection

Emotional engagement is conceptualized as the observed or reported enthusiasm, value and positive attitude towards school, teachers, classmates, and academic tasks (Fredricks et al., 2004; Lawson & Lawson, 2013; Skinner et al., 2009a). It also encompasses a student's feeling of relatedness or belonging in the school environment (Furrer, Skinner, & Pitzer, 2014). An emotionally disaffected student can experience anxiety, avoidance, boredom, frustration, and anger in relation to school and academic experiences. These negative feelings towards school can exacerbate a student's behavioral and cognitive disengagement (Reyes et al., 2012; Skinner et al., 2009a).

Student Cognitive Engagement and Disaffection

Cognitive engagement is the strategic self-regulation a student utilizes in learning and includes the exertion of cognitive effort, coping with academic failure, and taking on learning challenges (Fredricks et al., 2004; Pintrich & De Groot, 1990). Cognitive disaffection occurs when a student lacks the skills necessary to self-regulate their learning processes. Cognitive engagement is difficult to observe and measure, as it involves internal thought processes and executive functions that are not readily apparent and may not be consciously carried out by an engaged student (Corno & Mandinach, 2004; Finn & Zimmer, 2012).

Table 1
Engagement and Disaffection as Opposing Motivational Constructs
(Skinner & Pitzer, 2012)

	Engagement	Disaffection
Behavior		
Initiation	Action initiation	Passivity, Procrastination
Ongoing participation	Effort, Exertion	Giving up
Re-engagement	Working hard	Restlessness
	Attempts	Half-hearted
	Persistence	Unfocused, Inattentive
	Intensity	Distracted
	Focus, Attention	Mentally withdrawn
	Concentration	Burned out, Exhausted
	Absorption	Unprepared
	Involvement	Absent
Emotion		
Initiation	Enthusiasm	Boredom
Ongoing participation	Interest	Disinterest
Re-engagement	Enjoyment	Frustration/anger
	Satisfaction	Sadness
	Pride	Worry/anxiety
	Vitality	Shame
	Zest	Self-blame
Cognitive Orientation		
Initiation	Purposeful	Aimless
Ongoing participation	Approach Goal strivings	Helpless
Re-engagement		Resigned
	Strategy search	Unwilling
	Willing participation	Opposition
	Preference for challenge	Avoidance
	Mastery	Apathy
	Follow-through, care	Hopeless
	Thoroughness	Pressured

Measuring Student Engagement and Disaffection

Definitional and conceptual complexity of student engagement has led to methodological challenges in the measurement and analysis of the construct (Goldspink & Foster, 2013; Finn & Zimmer, 2012; Furlong & Christenson, 2008; Lawson & Lawson, 2013; Skinner et al., 2009b). Even with the largely agreed-upon behavioral, emotional, and cognitive dimensions of student engagement, recent research has attempted to clarify the construct and create more accurate and comprehensive

instruments with which to measure it (Appleton, Christenson, Kim, & Reschly, 2006; Fredricks, Blumenfeld, Freidel, & Paris, 2005; Fredricks, McColskey, Meli, Mordica, Montrosse, & Mooney, 2011; Goldspink & Foster, 2013). These continued clarifications underscore the challenge researchers face in effectively operationalizing this "meta-construct", and in designing an instrument that captures the concepts within the construct in their entirety.

The continuum of student engagement. Rather than a static trait that is either fully absent or present, engagement is a transactional and synergistic "state of being" (Furlong & Christensen, 2008, p.355; Lawson & Lawson, 2013) with malleable and dynamic properties. To illustrate this malleability, researchers offer various paradigms of engagement as existing along a continuum (represented by figure 1). While utilizing different terminology and categorizations, the work of Skinner et al. (2009a), Lawson and Lawson (2013), and Schlechty (2002) parallel one another in their use of student engagement as existing along a continuum, from a total absence of engagement to a fully intrinsic, self-generated engagement. In contrast, Martin (2008) conceptualizes motivation and engagement through a process-oriented approach.

Skinner. Skinner and colleagues (Skinner, Wellborn, & Connell, 1990; Skinner & Belmont, 1993; Skinner et al., 2009a,) posit that student engagement ranges from disaffection, which is characterized by the presence of avoidance, anger, frustration, boredom, apathy, and passivity to engagement, which reflects a student's initiative, persistence, enthusiasm, participation, interest, and value of learning.

Lawson and Lawson. Lawson and Lawson (2013) provide additional specificity to the potential possibilities of "student engagement dispositions" (p.448) that may be

present along an engagement continuum. In their model, premised on social-psychological theories and on Finn's (1993) participation-identification model, students experience dis-identification, or the absence of engagement, when they believe they do not have the necessary capacities or strategies to achieve their desired outcome and as such, feel disconnected from their educational environment. Student ambivalence is characterized by a student's reticent participation in an activity, with conflicted feelings and uncertainty about their capacity to succeed at the task. Student investment occurs when a student perceives themselves as capable of accomplishing a task and sees value in the task, but is motivated by external reasons rather by intrinsic, self-generated reasons. Lawson and Lawson's (2013) highest level of engagement is student initiative, which is present when a student demonstrates a consistent, persistent, and intrinsic drive and effort towards accomplishing a task.

Schlechty. Schlechty (2002) offers an alternative explanation of engagement, envisioning a continuum spanning from the most disengaged state of rebellion, in which a student refuses to engage in a task and actively disrupts others' learning, to authentic engagement, in which a student finds intrinsic and inherent value in the completion of a task. Between these opposite polarities, Schlechty (2002) suggests that a student can retreat, display passive compliance, or ritual compliance. This has been conceptualized by others as "compliant engagement" (Lawson & Lawson, p.445) or "procedural engagement" (Fredricks et al., 2004, p.67) and reflects the act of going through the motions of learning absent the self-direction, interest, or enthusiasm that research suggests is core to the definition of engagement, or "agentic engagement" (Reeve, 2012, p.161).

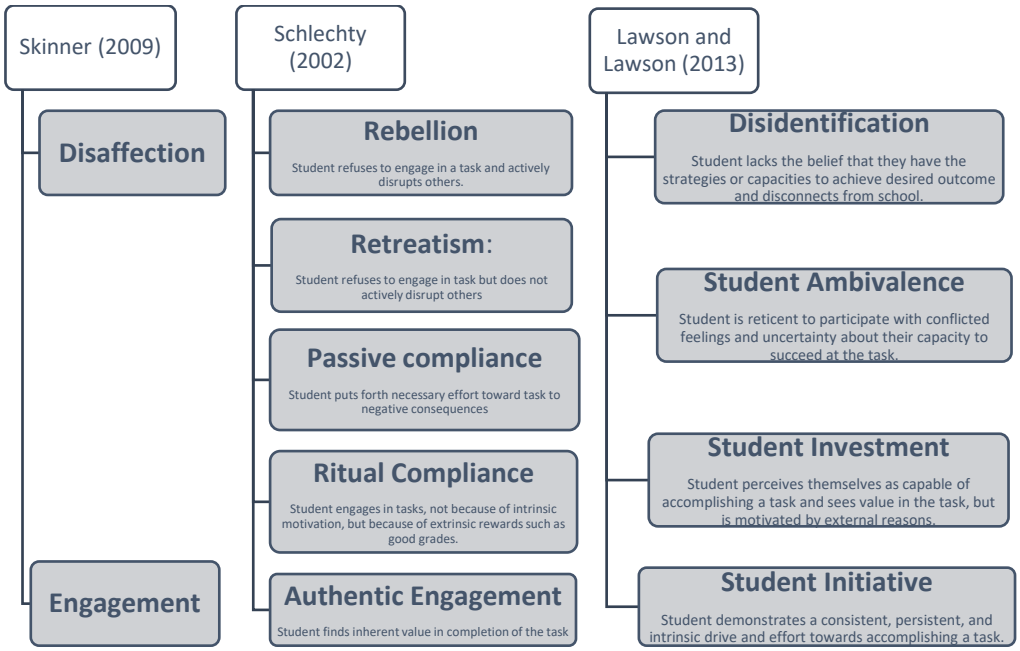


Figure 1. Constructs of engagement on a continuum.

Martin. Instead of a linear continuum, Martin (2008) proposes a Motivation and Engagement Wheel to represent the construct of engagement as being divided into four higher order dimensions: (a) adaptive cognition, (b) adaptive behavior, (c) impeding/maladaptive cognition, and (d) maladaptive behavior. Martin (2008) categorizes the behaviors or cognitive processes that are present in each particular dimension. Adaptive cognition refers to the development of a mastery orientation, a recognized value of a task, and high self-efficacy, while impeding/maladaptive cognition is driven by anxiety, avoidance of failure, and lack of control. Adaptive behavior represents persistence, planning, and task management, while maladaptive behavior is demonstrated by self-handicapping and disengagement. In contrast to Skinner and colleagues (2009a), Lawson and Lawson (2013), and Schlechty (2002), whose categorizations of engagement center around demonstrable behaviors representative of a

student's involvement in learning, Martin's (2008) approach focuses on the cognitive and behavioral processes that drive a student's engagement.

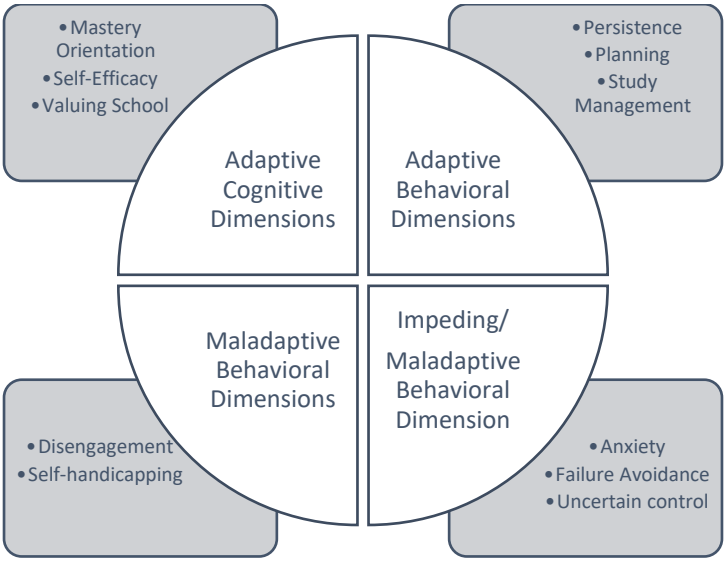


Figure 2. Martin's (2008) Wheel of Motivation and Engagement

Engagement and Motivation as Related Constructs

Research literature on engagement varies on the approach to the relationship between the constructs of engagement and motivation. Whereas studies focused on dropping out of school and problematic student behaviors present engagement as a construct separate and distinct from motivation (Hirschfield & Gasper, 2011; Li & Lerner, 2011; Scott et al., 2014), research on classroom and school climate, student achievement, academic resilience, instructional practices, or academic self-concept has focused on motivation and engagement as interdependent and synergistic constructs (Dupont et al., 2014; Furrer et al., 2014; Jang et al., 2010; Saeed & Zyngier, 2012; Taboada Barber et al., 2017). The present review considers motivation and engagement as related and synergistic constructs, aligning with the self-system model of motivational

development (Connell & Wellborn, 1990; Skinner et al., 2009) as the guiding definitional framework of engagement.

Motivation is the internal cognitive process that directs and drives a person's energy, interest, effort, and persistence in achieving a task or goal (Appleton et al., 2006; Lin-Siegler et al., 2016; Martin, 2008). *Engagement* is the outward observable manifestation of one's motivations towards accomplishing a task. In other words, engagement is the activation of the internal process of motivation (Appleton et al., 2006; Lawson & Lawson, 2013; Martin, 2008; Skinner et al., 2009a). In the context of student learning, engagement is the vehicle through which students enact their motivation to learn. A student's motivational patterns are the implicit ideas that he or she has about the value and utility of their energy, effort, and persistence. These patterns of thinking directly influence the degree to which a student engages in the learning process (Dweck, 2002; Gunderson et al., 2013; Skinner et al., 2009a).

The Problem of Student Disengagement

Student engagement initially became a focal point of educational research as a method of school reform and a potential intervention to decrease the number of students dropping out of school (Finn, 1993; Furlong & Christenson, 2008). However, research now indicates the broadened importance of engagement in learning, through highlighting its influence on students' academic, emotional, and social development. Students' levels of behavioral and emotional engagement in learning positively correlate with academic achievement (Fredricks et al., 2004; Jimerson, Campos, & Greif, 2003), academic resilience (Martin & Marsh, 2006), life satisfaction (Lewis, Huebner, Malone, & Valois, 2011), reading comprehension (Wigfield et al., 2008), positive interpersonal

relationships, and self-esteem (Li & Lerner, 2011). In contrast, disaffection and disengagement in learning is not only predictive of an increased likelihood of dropping out of school (Archambault et al., 2009; Finn, 1993; Lehr, Sinclair, & Christenson, 2004; Reyes et al., 2012), but also positively correlates with substance use, anxiety, classroom disruptions, anger, boredom, depression, negative interpersonal relationships, and delinquent behaviors (Hirschfield & Gasper, 2011; Reyes et al., 2012; Wang & Fredricks, 2014).

Engaging Students with Learning Differences

The importance of engagement and the problem of disaffection are particularly influential for students with learning differences, including learning disabilities and students who are gifted. Students with learning differences may be particularly sensitive to the dynamics of engagement and disaffection within a classroom context (Bodovski & Farkas, 2007; Steiner, Sheldrick, Frenette, Rene, & Perrin, 2014). In their study of elementary school students' engagement in math, Bodovski and Farkas (2007) found that students with the lowest math skills had the most to gain from engagement with their learning. Put differently, student engagement mediated the achievement of weak math students more than for students with stronger math skills. Steiner et al. (2014) further this argument in their findings that students with ADHD were far more sensitive to the teaching formats in their classroom than students without ADHD and required more engaging instructional strategies than peers without ADHD in order to reach comparable levels of achievement.

Gifted students and disaffection from learning. This differential sensitivity to engagement also applies to gifted students, who may be particularly susceptible to the

risks associated with disengagement because their indicators of disengagement may look markedly different than indicators of disengagement for other students. Landis and Reschly (2013) argue that low scholastic achievement and grade retention, which can often be considered potential indicators of student disengagement, are unreasonable indicators when evaluating whether gifted students are engaged or disaffected by their learning. Gifted students may continue to excel academically despite feeling disaffected from learning and may only begin to underachieve when they are already significantly disengaged from the school environment. At this point, students are already at increased risk for school failure and for dropping out of school (Landis & Reschly, 2013; McCormick & Plucker, 2013).

The importance of differentiating the indicators of disengagement for gifted students underscores the crucial distinction made in Skinner and colleagues' (Skinner, Furrer, Marchand, & Kindermann, 2008b; Skinner et al., 2009a; Skinner et al., 2009b; Skinner & Pitzer, 2012) research between disengagement and disaffection. In their self-system model of motivational development, Skinner et al. (2009a) argue that a motivational conceptualization of engagement encompasses behavioral, attentional, and emotional components. While disengagement indicates behavioral withdrawal or passivity, disaffection more broadly encompasses reactions that include boredom, resignation, anxiety, and hopelessness. This is particularly relevant when considering that gifted students may not behaviorally disengage from their schoolwork and may continue to achieve, while still feeling deeply disaffected within their learning environment (McCormick & Plucker, 2013).

Learning Profiles at KDS

The argument that varying student populations may be particularly sensitive to engaging in learning is notably applicable to the current study at KDS, where the majority of students scored between high average to very superior on the Wechsler Preschool and Primary Scale of Intelligence IV (WPPSI-IV) or the Wechsler Intelligence Scale for Children V (WISC-V), both standardized measures of cognitive ability (Weissman, 2017). While students demonstrate high cognitive potential, nearly 17% of elementary school students within this context have a diagnosis of ADHD (Weissman, 2017). When taken together with the differential sensitivity that varying student populations may have to engagement in learning, this demographic data suggests that teachers at KDS need to be particularly aware of engaging their students in learning and moreover, need to recognize that participation and achievement are not necessarily always indicative of student engagement.

Developmental Trends in Student Engagement

With a substantial body of research identifying a declining trend in student engagement from the time of kindergarten entry throughout a student's years in high school, the problem of student disengagement is relevant to investigate and understand, starting with elementary school students (Archambault et al., 2017; Balfanz, Herzog, & Mac Iver, 2007; Morgan & Fuchs, 2007; Wigfield & Eccles, 2002). Students as early as first-grade may begin to report feelings or to demonstrate behaviors indicative of disaffection with learning (Cain & Dweck, 1995; Dweck, 2002; Miele, Son, & Metcalfe, 2013). Balfanz et al. (2007) found that third-grade teachers can predict which of their students will ultimately drop out of school with 70% accuracy. The steep decline in

engagement during students' years in middle school may be largely predicated on the self-system processes that students develop in their elementary school years (Blackwell, Trzseniewski, & Dweck, 2007; Hirschfield & Gasper, 2011; Wang & Fredricks, 2014; Wigfield & Eccles, 2000). Self-system processes refer to the ways in which a person perceives themselves and thus interprets their experiences with the world around them, and include an individual's perception of their own abilities, perceived control, competency beliefs, self-efficacy, expectancies, values, attributions, goals, goal orientations, sense of belonging, and sense of autonomy (Connell & Wellborn, 1990; Skinner et al., 2009a). It is therefore critical to consider what factors across societal, familial, school, and individual domains are supporting or subverting adaptive motivational patterns and foundations of engagement with learning, beginning in elementary school (Cain & Dweck, 1995; Park et al., 2016).

Student Engagement in Religious Studies

A notable gap exists in student engagement literature regarding students' levels of engagement within the context of religious education. This study considers religious education to be the teaching of a particular religion through a faith-based framework, with the goal of providing students with the religious knowledge and literacy necessary to observe and participate in religious life. Research has not addressed the specific factors contributing to student engagement within a religious educational framework, which may differ markedly from other academic domains. Children's spiritual development, moral development, and response to the authoritative discourse present within religious rhetoric may all contribute to the nature and degree of students' engagement in religious

education (Fowler, 1981; Hassenfeld, 2016; Mahatmya, Lohman, Matjasko, & Farb, 2012).

While the question of what drives students to engage in their religious education may remain largely unanswered, the research on the benefits of student engagement and the detriments of disaffection becomes especially compelling when considered within a religious educational context. Utilizing a mixed-method study of youth from eight countries, Scales, Syvertsen, Benson, Roehlkepartain, and Sesma (2014) found that children's spiritual development and participation in religious education is positively correlated with a multitude of adaptive developmental outcomes, including prosocial behaviors, psychological well-being, and educational achievement. These findings are echoed by Glanville, Sikkink, and Hernandez (2008), who point to the positive influence of religious involvement on educational outcomes, even when controlling for other important predictors of educational achievement, including family support and socioeconomic background. Taken together, children's religious participation and spiritual development positively impact overall well-being and healthy development (Glanville et al., 2008; Syvertsen et al., 2014).

Engagement in Jewish education. The absence of empirical research on what influences students to engage or disengage in religious education certainly includes a dearth in research on Jewish education as well. Pomson (2011) and Krakowski (2011) point to the absence of research within a Judaic Studies classroom environment, with Pomson (2011) stating that the Jewish day school environment is a black box which has yet to be opened. It is unclear as to what transpires within the day school environment to produce a given output of achievement. Krakowski (2011) points to the absence of a

body of systemic research on Judaic Studies classrooms with a Jewish day school environment and highlights the lack of clarity around Judaic Studies curricula or pedagogic approaches in Judaic Studies as a significant challenge that Jewish day school educators need to address.

Factors Contributing to Engagement and Disaffection

Student engagement and disengagement are proximal processes that shape students' academic, emotional, and physical well-being and development (Bronfenbrenner, 1979; Skinner et al., 2009a). The many factors contributing to a student's engagement or disengagement span the societal, familial, school, classroom, and individual contexts (Cai & Liem, 2017; Furrer et al., 2014; Marks, 2000; Scott et al., 2014; Urdan & Schoenfelder, 2006).

Societal Factors

Disengagement from learning can often be a harbinger of maladaptive development, further exacerbated when students live in poverty or are exposed to violence (Evans, Kim, Ting, Tesher, & Shannis, 2007; Jensen, 2013; Spilt, Hughes Wu, & Kwok, 2012). Boys, students of color, and students from socioeconomically disadvantaged families face an elevated risk of experiencing such fallout (Li & Lerner, 2011; Skinner et al., 2009a). Research on the impacts of poverty, violence, and mobility on student engagement is critical (Finn & Rock, 1997; Jensen, 2013) in elucidating the driving social, cultural, and economic factors that affect a student's investment in their learning.

School Factors

A classroom environment is the microsystem in which a child engages or disengages with the learning process (Bronfenbrenner, 1994; Lin-Siegler et al., 2016; Mahatmya et al., 2012; Reyes et al., 2012; Skinner et al., 2009a). Within this microsystem, the social partners of teachers and classmates, the learning activities, and the rules and routines of the classroom influence the proximal processes of engagement and disaffection (Bronfenbrenner, 1994; Skinner et al., 2009b). Extensive research underscores the influence of these contextual factors, in conjunction with a child's self-system and self-perceptions on a child's motivation and engagement in learning (Covell, 2010; Lutz, Guthrie & Davis, 2006; Saeed & Zyngier, 2012; Scott et al., 2014; Urdan & Schoenfelder, 2006).

Familial Factors

Familial factors also play a role in shaping student's engagement in learning. Parents' involvement in their children's lives positively correlate with school engagement, intrinsic and extrinsic motivation, children's perceived competence, perceived control, self-regulation, mastery goal orientation, and motivation to read (Cai & Liem, 2017; Gonzalez-DeHass, Willems & Holbein, 2005; Hirschfield & Gasper, 2011). Parental involvement has been defined in a variety of ways, including parental attachment, parental participation in school activities, parent-initiated school contact, school-initiated contact with parents, parent rules at home, or parent-child interaction at home (Fan & Williams, 2010; Hirschfield & Gasper, 2011),

Individual Factors

Self-system processes are the ways in which a person perceives themselves and thus interprets their experiences with the world around them. These processes, as seen in figure 3, include an individual's perception of their own abilities, perceived control, competency beliefs, self-efficacy, expectancies, values, attributions, goals, goal orientations, sense of belonging, and sense of autonomy (Connell & Wellborn, 1990; Skinner et al., 2009a). Taken together, these processes and self-systems largely shape a student's academic self-concept and motivational patterns, which drive the degree to which a student engages or disengages from learning.

Focus of Review

The influences of school climate and relationships with peers and teachers may in fact surpass the effects of socioeconomic status and level of intelligence on students' engagement in learning (Irvin et al., 2011; O'Connor & MacCartney, 2007). Even when students demonstrate high academic potential and come from middle to high socioeconomic backgrounds, school disengagement can diminish the opportunity for students' achievement and adaptive development. In her study on school engagement in third and fourth-graders with above-average intelligence, Miserandino (1996) found that high intelligence and ability could not singularly predict achievement. Rather, when students with above-average intelligence were not engaged in their learning, they demonstrated anger, avoidance, and lower levels of achievement.

The current study explores what may influence students to disengage from learning when they do not have risk factors of poverty, violence, or learning challenges. Here, the focus is on the interactional individual and school factors that contribute to a

student's engagement or disaffection with learning (Blackwell et al., 2007; Park et al., 2016; Patrick et al., 1993; Skinner et al., 2009a).

Individual Factors Contributing to Engagement and Disaffection

Children's perceptions, beliefs, and underlying capacities shape motivational patterns and academic engagement and disaffection (Martinek, Hofmann, & Kipman, 2016; McCombs, Daniels, & Perry, 2008; Miele et al., 2013). Self-system processes are the ways in which a person perceives themselves and thus interprets their experiences with the world around them. These processes include an individual's perception of their own abilities, perceived control, competency beliefs, self-efficacy, expectancies, values, attributions, goals, goal orientations, sense of belonging, and sense of autonomy (Connell & Wellborn, 1990; Furrer & Skinner, 2003; Skinner et al., 2009a; Stipek & Gralinski, 1996).

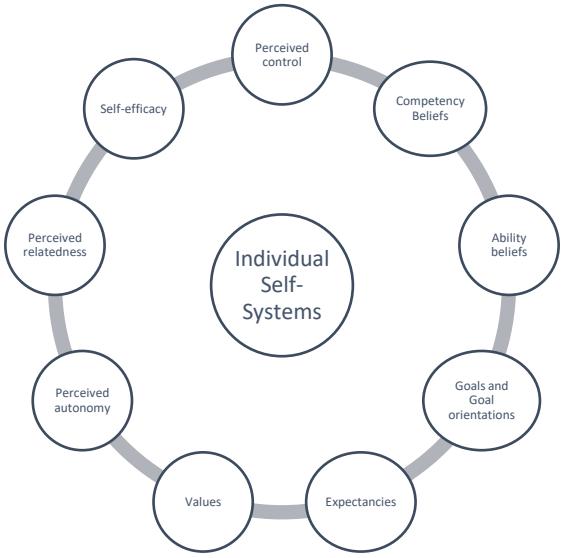


Figure 3. Individual Self-Systems Influencing Engagement

Taken together, these processes and self-systems largely shape a student's academic self-concept and motivational patterns, which drive the degree to which a student engages or disengages from learning. While young children's self-perceptions and self-systems initially take form as distinct and disjointed beliefs about one's abilities, competence, value, and control in the early elementary school years, children develop a coalesced and coherent system of thinking and theory of intelligence and ability and motivational framework by the fourth or fifth-grade (Dweck, 2002; Kinlaw & Kurtz-Costes, 2007; Morgan & Fuchs, 2007; Wigfield & Eccles, 2002). This formation of a coherent network of self-systems and self-processes affects and often negatively impacts the nature of a child's motivation and engagement in learning (Dweck, 2002).

Students disengage from school and lack motivation to learn and achieve when they do not perceive themselves as competent, in control of their achievement, and as belonging within their school or classroom context (Grolnick & Ryan, 1987; Furrer et al., 2014; Stipek & Weisz, 1981; Taboada Barber et al., 2017). These perceptions of competence and control are largely driven by children's implicit theories of intelligence, goal orientations, and motivational patterns and further shed light on why students may lack motivation or engagement (Cain & Dweck, 1995; Dweck, 2002; Heyman & Dweck, 1998).

Competence beliefs. Competence beliefs refer to one's self-perceptions as being capable of achieving a desired outcome or succeeding at a given task (Dweck, 2002; Morgan & Fuchs, 2007; Wentzel & Wigfield, 1998; Wigfield & Eccles, 2002). Within an educational context, competence beliefs reflect a child's general beliefs about their ability and expectancies about their success and self-efficacy as it relates to specific tasks

(Linnenbrink & Pintrich, 2002; Morgan & Fuchs, 2007; Wentzel & Wigfield, 1998). Children's competence and ability beliefs start as largely undifferentiated and inaccurate in preschool and kindergarten and develop into markedly accurate, domain-specific understandings of ability by seven to eight-years-old (Kinlaw & Kurtz-Costes, 2007; Mahatmya et al., 2012).

Perceived control. Perceived control is the degree to which a person believes that they have control over their performance and success in a given context or for a specific task. A person's perception of self-efficacy, competence, and their attributions together comprise their perceived control. Studies suggest that when children perceive themselves as competent and therefore in control of their achievement, they demonstrate high levels of motivation and engagement in their learning. In contrast, when children cannot identify what it takes to achieve school success, believe that they are incapable of exerting the necessary effort, or consider themselves unlucky and lacking access to powerful others, they become disengaged from school and lack motivation to learn and achieve (Miserandino, 1996; Patrick et al., 1993; Skinner et al., 1990; Stipek & Weisz, 1981).

Strategy beliefs and capacity beliefs. Research on the impacts of perceived control on student motivation and engagement is predicated on the social learning theories, and specifically, the concepts of learned helplessness (Seligman, 1975), attribution theory (Weiner, 1985), and locus of control theories (Rotter, 1966), which all share the overarching concept that a person demonstrates passivity, experiences depression, and lacks motivation and engagement when they believe that their behaviors and actions do not play a role in bringing about a desired outcome. Skinner et al. (1990)

suggests that perceived control can be divided into strategy beliefs and capacity beliefs. While strategy beliefs reflect a person's beliefs about the effort, ability, luck, and access to powerful others necessary in order to achieve a goal, capacity beliefs reflect whether that person believes that they themselves have the effort, ability, luck and access to powerful others to do well.

Locus of control. The concept of *locus of control* (LOC), situated within Weiner's (1985) attribution theory, is another important construct in understanding what drives engagement in learning. The LOC refers to a person's belief that they are in control, or whether outcomes are determined by external factors. It examines the degree to which they believe they can manipulate the factors that determine desired outcomes (Rotter, 1966; Stipek & Weisz, 1981). When a child has an internal LOC, they believe that they control their successes and failures, and that their actions and behaviors can influence their desired outcomes. In contrast, children that have an external LOC or an unknown LOC believe that they are helpless in affecting outcomes and events (Grolnick, Gurland, Jacob, & Decourcey, 2002; Patrick et al., 1993; Wentzel & Wigfield, 1998). A child's LOC informs the degree to which they believe they can achieve academic success.

Implicit theories of intelligence. Implicit theories of intelligence refer to the underlying beliefs that people have about the nature of intelligence (Martin, Botswick, Collie, & Tarbeskty, 2016). There has been extensive research on the process and development of children's theories of intelligence, and the role that these theories play in shaping motivational patterns and engagement (Dweck, 2002; Dweck & Leggett, 1998; Park et al., 2016). The scholarship indicates that people have implicit and subconscious theories about intelligence and ability, both generally and as it relates to their own

abilities. Incremental theorists believe that intelligence is malleable and capable of developing and growing over time. Entity theorists, in contrast, believe that each person has a fixed, static amount of intelligence and cannot expand this amount with effort (Blackwell et al., 2007; Dweck, 2002; Gunderson et al., 2013; Heyman & Dweck, 1998).

Various contextual factors contribute to children's theories of intelligence and motivational patterns, including parental involvement and praise (Gonzalez-DeHass et al., 2005; Gunderson et al., 2013) instructional strategies and school contexts (Lin-Siegler et al., 2016; Park et al., 2016), and other self-systems like competence beliefs and goal orientations (Skinner et al., 2008b; Skinner et al., 2009a). In addition, theories of intelligence shape children's metacognitive judgments (Miele et al., 2013), and goals for achievement, with findings suggesting that incremental theorists pursue mastery goals and entity theorists pursue performance goals (Blackwell et al., 2007; Dweck, 2002; Heyman & Dweck, 1998). Students who believe in the incremental growth and malleability of intelligence have been shown to be more likely to achieve school success and to demonstrate academic resilience (Martin & Marsh, 2006; Park et al., 2016).

Research suggests that theories that children hold about their intelligence and motivational patterns develop into a fully coherent set of beliefs around 10 years of age (Dweck, 2002; Kinlaw & Kurtz-Costes, 2007; Martinek et al., 2016), but are noted to be in development from a very young age (Cain & Dweck, 1995; Gunderson et al, 2013; Metallidou & Vlachou, 2007; Miele et al., 2013). By identifying this developmental trajectory, scholars can tailor interventions to positively shape students' ability beliefs and motivational patterns before they are fully formed. While theories of intelligence and motivational frameworks were originally hypothesized to develop in the later elementary

school years and as students transition to middle school (Cain & Dweck, 1995), scholars have found that children as young as five and six-years-old hold cognitions about whether intelligence is malleable or fixed (Gunderson et al., 2013). In their seminal study of the relationship between cognitions and motivational patterns in first, third, and fifth-graders, Cain and Dweck (1995) found that first-graders with performance goals were more likely to perceive themselves as helpless in their academic success and to develop entity theories of intelligence by the fifth-grade. The study also found that first-graders with mastery goals were more likely to perceive themselves as in control of their academic success and to develop incremental theories of intelligence by fifth-grade.

Sense of relatedness. A child's perceived sense of relatedness is an additional underlying factor that contributes to their level of motivation and engagement in learning. Furrer et al. (2014) propose that children develop a sense of their social selves by integrating their self-perceptions with their experiences in social relationships. The authors found that when children perceive themselves as belonging within a social context, they demonstrate high levels of engagement. This finding confirms Deci et al.'s (1991) assertion that students will demonstrate their optimal levels of motivation and engagement when their need for relatedness is met. When a child feels disregarded or not cared for within their school context, they consequently disengage from learning and face an increased likelihood of disruptive and negative behaviors (Reyes et al., 2012). The impact of a classroom in which a student perceives themselves as not belonging will be addressed later in this review's discussion of underlying school factors contributing to student disengagement.

Classroom Factors Contributing to Engagement and Motivation

A classroom environment is the microsystem in which a child engages or becomes disaffected with the learning process (Bronfenbrenner, 1994; Lin-Siegler et al., 2016; Park et al., 2016; Scott et al., 2014; Skinner et al., 2009a; Taboada Barber et al., 2017). Within this microsystem, academic domain, instructional practices, the social partners of teachers and classmates, learning tasks, and the rules and routines of the classroom, as shown in figure 4, influence the proximal processes of engagement and disaffection, and together, create a student's learning environment (Jang et al., 2010; Lin-Siegler et al., 2016; Skinner et al., 2009; Wigfield, Guthrie, Tonks, & Perencevich, 2004). Extensive research underscores the influence of these contextual factors, in conjunction with a child's self-system and self-perceptions on a child's motivation and engagement in learning (Covell, 2010; Lutz et al., 2006; Saeed & Zyngier, 2012; Scott et al., 2014; Skinner et al., 2009a; Urdan & Schoenfelder, 2006).

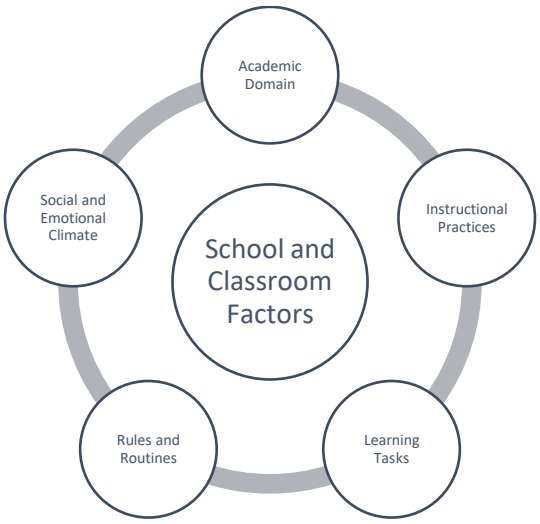


Figure 4. School and Classroom Factors Influencing Engagement

Domain specificity. A student's engagement in their learning can manifest in vastly different ways among various academic domains (Anderman, 2004; Bong, Cho,

Ahn, & Kim, 2012; Martin, 2008). Being that a student's academic self-concept and self-efficacy can vary across academic disciplines, and in understanding that these self-systems play a significant role in a student's engagement in learning, students may be far more engaged in a domain in which they feel competent and efficacious (Bong et al., 2012; Wigfield et al., 2004). The Expectancy-Value theory (Wigfield & Eccles, 2002), discussed in greater depth in a subsequent section of this paper, further underscores the domain-specific nature of student engagement. This theory suggests that students can have varied degrees of expectancies for success, and may assign different task values based on academic subject. These expectancies and values thereupon drive a student's psychological investment, effort, and enthusiasm towards achievement (Bong et al., 2012).

Despite the findings that self-efficacy and competence beliefs vary based on domain, there is an absence of research on the domain-specific nature of engagement. Instead, the majority of research on engagement in learning has been focused on a generalized view of the construct (Fredricks et al., 2004; Skinner et al., 2009a). Anderman (2004) criticizes this generalized approach to engagement research, arguing that it runs counter to the evidence that both content and context largely shape engagement (Martinek et al., 2016; Skinner et al., 2009a). Martin (2008) furthers Anderman's (2004) criticism by suggesting that researching engagement through a generalized perspective leads to generalized, and thus potentially ineffective interventions that may not be targeting the domain-specific source of disengagement.

While domain-based expectancies for success and task value contribute to varying levels of engagement in learning among various academic domains, Wigfield et al.

(2004) argue that a school's approach to curriculum can influence whether student engagement is domain-specific or integrated across domains. In schools where subjects are taught separately and clearly demarcated, students demonstrated a domain-specific approach to engagement in learning. In contrast, in schools where curriculum was integrated across domains, students' engagement was far more cohesive in nature.

Instructional practice. A teacher is the mediating force who initiates and regulates student motivation, or who undermines a child's active and enthusiastic investment in learning engagement (Brophy, 2013; Jang et al., Scott et al., 2014; 2010; Skinner et al., 2008b; Urdan & Schoenfelder, 2006). Reeve (2016) suggests that students' engagement in learning is an "interpersonally coordinated process between teacher and students" (p.225). In other words, a teacher's instructional practices largely shape a student's self-systems and self-processes, including their perceptions of autonomy, competence, and relatedness within the classroom context (Jang, 2008; Lin-Siegler et al., 2016; Park et al., 2016; Urdan & Schoenfelder, 2006). Scott et al. (2014) add to these findings by arguing that instructional practice does not influence student engagement unidirectionally; rather, a teacher's instructional practices and a student's engagement and motivation impact each other reciprocally. The integral role that the classroom context plays in motivating and engaging students and in shaping their self-systems and self-processes aligns with Neal and Neal's (2013) assertion in the networked approach to ecological systems theory (Bronfenbrenner, 1979). The classroom context and teacher instructional practices directly shape a child's motivational framework, which influences engagement in learning (Bandura, 1977; Jang et al., 2010; Skinner et al., 2009a; Urdan & Schoenfelder, 2006).

Teacher motivating style. Deci and Ryan (1985) and Reeve (2016) argue that each teacher develops their own motivating style within the context of a classroom. A motivating style refers to the overarching tone of student-teacher interactions within a specific classroom and guides the instructional practices a teacher utilizes (Cheon, Reeve, Lee, & Lee, 2018; Reeve, 2016). Understood within Self-Determination Theory (Deci & Ryan, 1985), a teacher's motivating style range along a continuum from highly controlling to highly autonomy-supportive, and is a significant driving force behind a student's engagement or disaffection with learning.

Autonomy-supportive teaching. Reeve (2016) defines autonomy-support as "the interpersonal sentiment and behavior the teacher provides during instruction first to identify, then to vitalize and nurture, and eventually to develop, strengthen, and grow students' inner motivational resources" (p.130). When instruction is autonomy-supportive, a teacher fosters students' inner motivational resources, allows for students to develop competence, and builds learning activities and experiences upon student interests and values, thus meeting the basic psychological need of the student to feel driven by their sense of self and own volition (Reeve, 2006; Reeve, 2016; Ryan & Deci, 2013). Autonomy-supportive instructional practices, as reflected in figure 5, include asking for and listening carefully to student input, providing avenues for students to work in ways they choose, allowing students to talk to one another while learning, designing learning tasks, materials, and the physical environment so that students are actively working with manipulatives and discussing ideas as opposed to passively listening to a teacher's instruction, celebrating the effort that students put into learning, praising mastery and gradual improvement, providing progress-enabling hints when students are having

difficulty solving a problem, offering informative evaluation of student work, tailoring learning tasks to students' optimal level of challenge, and responding to students' questions and comments in a way that indicates a clear recognition of the students' perspectives (Reeve, 2006; Reeve, 2016). Martinek et al. (2016) underscore that autonomy-supportive teaching implicitly involves a learner-centered, individualized, and differentiated instructional approach. Taken together, these instructional practices create an autonomy-supportive environment that leads to a wide range of positive outcomes including high levels of student engagement and motivation, greater levels of student achievement, conceptual understanding, and overall well-being (Cheon et al. 2018; Deci et al., 1991; Jang, 2008; Jang et al., 2010; Reeve & Halusic, 2009).

The literature on autonomy-supportive teaching clearly highlights that autonomy-support does not imply a lack of structure within a classroom environment (Jang et al., 2010). Rather, autonomy-supportive teaching is only effective when it is underpinned by a teacher's clearly and regularly communicated rules, routines, and expectations, standards and goals for learning, and organizational strategies. This structure is a critical complement to autonomy-supportive teaching, through which the teacher scaffolds the learning experience, and thus allows the students to build their competencies and sense of efficacy as they progress in a learning experience (Jang et al., 2010; Reeve, 2016; Ryan & Deci, 2013).

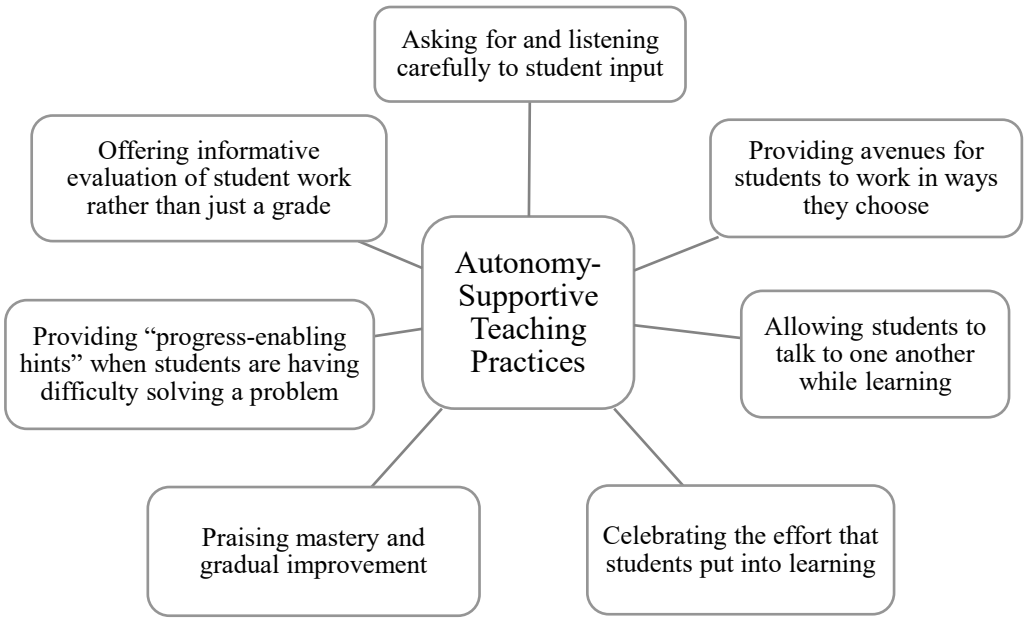


Figure 5. Autonomy-Supportive Teaching Practices

Controlling instructional style. A controlling instructional style negatively correlates with student motivation and engagement (Reeve, 2016; Urdan & Schoenfelder, 2006). Instructional practices that embody a controlling motivating style include controlling the learning materials and manipulatives, limiting student ability to solve problems independently, using demanding and commanding language, directing student work, providing deficit-focused evaluations that imply student incompetence, ignoring student input, and using threats and competition to motivate students to achieve and to comply with a teacher-driven agenda. The need to motivate students through external contingencies and reinforcements creates a system in which teachers do not foster students' autonomy or intrinsic, self-determined motivation and weakens the likelihood that students will pursue achievement past the point of external reinforcement. In addition to decreasing student engagement in learning, a highly-controlling instructional practice

and style has been found to decrease weaken a student's conceptual understandings and creativity (Grolnick & Ryan, 1987; Urdan & Schoenfelder, 2006).

Classroom social context. In considering a classroom as a microsystem, it is important to explore the ways in which this social context influences student engagement or disaffection in learning (Furrer & Skinner, 2003; Reyes et al., 2012; Wentzel & Wigfield, 1998). Research points to the role that classroom climate and social environment play in helping or hindering a student's investment in their learning. In Reyes et al.'s (2012) study on classroom emotional climate (CEC), the authors define a high CEC as an environment where students feel cared for by the teacher and where the classroom is designed in accordance to the students' developmental levels. A low CEC is present when students and teachers demonstrate disrespect to one another and where students do not feel as if they belong. Findings highlight the significant decline in student engagement when a CEC is low. These findings align with Furrer and Skinner's (2003) argument for the importance of relatedness in fostering engagement in learning. Students feel as though they belong in the classroom when they feel cared for and understood by their teachers and their classmates. Ryan and Patrick (2001) further highlight the classroom social environment as a contributing factor to student engagement or disaffection in their finding that students demonstrate disaffection when they perceive themselves as compared or evaluated relative to classmates.

This feeling of connection to the others within the social context of a classroom deepens a student's affective investment in this environment. In their review of social and academic motivational influences on student achievement, Wentzel and Wigfield (1998) argue that in understanding student engagement, it is important to not only examine what

motivates students academically, but it is equally as essential to understand students' social motivations within a classroom. The social context of a classroom plays such an integral role in student success or failure, that it is must be considered as part of a student's learning and educational experience.

Conclusion

The present synthesis of the research literature on student engagement and disaffection defines this complex and multifaceted construct and highlights the individual and school-based factors that underlie student disengagement in learning. The importance of student engagement and motivation to learn, and the detrimental developmental impact of student disengagement offer a compelling case for research on student engagement and disaffection. Being that children can begin to demonstrate disaffection with learning as early as first-grade, and that indicators of school dropout are typically present by the third-grade, it is essential to understand how children's self-systems and teachers' instructional practices and classroom social and emotional climates together shape how students invest in or withdraw from their education (Dweck, 2002; Wigfield & Eccles, 2000). The finding that elementary school students with above-average intelligence demonstrated behavioral and emotional disengagement when they perceived themselves to lack control over their academic success speaks to the necessity of fostering adaptive self-processes and school environments that prioritize student engagement (Miserandino, 1996). This is necessary not only for children who come from socioeconomically disadvantaged families, boys, or children of color; rather, the synthesis of the research literature highlighted the importance of prioritizing student engagement for students of all backgrounds and abilities beginning in elementary school through a constellation of

approaches aimed at students' self-concepts and schools' approaches to teaching and learning.

CHAPTER 2

Introduction

The importance of student engagement and the potentially detrimental academic, social, and developmental impacts of student disengagement offer a compelling case for research on student engagement and disaffection (Archambault & Dupéré, 2017; Furlong & Christenson, 2008; Furrer et al., 2014). With evidence indicating that disaffection with learning can develop as early as first-grade, and with the recognition that school factors can often supersede the effects of factors external to school in influencing student engagement (Irvin et al., 2010; O'Connor & MacCartney, 2007), studying and identifying the specific school-related factors that contribute to engagement in learning is paramount. It is essential to understand how children's self-systems, teachers' instructional practices and classroom climates together shape students' investment in learning (Dweck, 2002; Skinner et al., 2009a; Wigfield & Eccles, 2000).

Needs Assessment: Goals and Objectives

Over several years of working within the school context of Kehillah Day School (KDS), the author observed low levels of student engagement among elementary school students. To investigate the degree to which these anecdotal observations were rooted in an empirically evident problem of practice, the author conducted a needs assessment, with the following objectives:

- To identify the degree to which students feel engaged or disaffected with their learning;
- To measure and compare students' reported levels of behavioral and emotional engagement in both General Studies and Judaic Studies;

- To investigate whether teacher reports of student engagement were aligned or misaligned with students' self-reports;
- To compare levels of student engagement between early elementary and upper elementary school;
- To investigate the potential relationships among student engagement or disaffection with teacher instructional practices, students' implicit theories of intelligence, and sense of relatedness within their learning environment.

Needs Assessment: Research Questions

To accomplish these objectives, the following research questions guided the needs assessment:

1. To what degree are second and fourth-grade students reporting behavioral and emotional engagement or disaffection in their learning?
2. Does the degree of engagement or disaffection change from second-grade to fourth-grade?
3. Is there a discrepancy between students' levels of engagement in General Studies and Judaic Studies?
4. What is the relationship between students' self-reported levels of engagement or disaffection and their sense of relatedness and their implicit theories of intelligence?
5. What is the relationship between teacher instructional practice (highly controlling, teacher-centered or highly autonomy-supportive, student-centered) and student engagement or disaffection?

Methodology

Participants

The participant sample included second-grade and fourth-grade students at a private Jewish day school in a suburban area of a Mid-Atlantic state. Seventy-five percent of families in the school earn an income greater than $100,000 a year with thirty-five percent of families earning greater than $200,000 a year, as per school report on families' financial profiles. All students attending the school are Jewish and a significant majority of the students in the school are Caucasian. The school utilizes a dual-curriculum, teaching General Studies in the first 60% of the day and Judaic Studies in the remaining 40% of the day. Most students enter the elementary school in kindergarten or first-grade. There is minimal additional enrollment after first-grade. The majority of participants scored between high average to very superior on the Wechsler Preschool and Primary Scale of Intelligence IV (WPPSI-IV) or the Wechsler Intelligence Scale for Children V (WISC-V), standardized measures of cognitive ability.

Students were recruited through an opt-in consent form, which parents signed to provide permission for their child to participate in the study. The final second-grade sample was comprised of 79% of the total second-grade student body (N: 37; Female: 22; Male: 15), and the fourth-grade sample was 55% of the total fourth-grade student body (N: 27; Female: 13; Male: 14). With data collection occurring over several days, some students were absent on the days that certain measures were administered. In second-grade, 97% of participants completed the Engagement vs. Disaffection in Learning surveys (Skinner et al., 2008a, 2009c) for both General Studies and Judaic Studies. All second-grade participants completed the Sense of Relatedness Surveys (Furrer &

Skinner, 2003) and Children's Motivational Framework Questionnaire (Gunderson et al., 2013). All fourth-grade participants completed the Engagement vs. Disaffection in Learning surveys (Skinner et al., 2008a, 2009c) for both General Studies and Judaic Studies, Sense of Relatedness Surveys (Furrer & Skinner, 2003), and Children's Motivational Framework Questionnaire (Gunderson et al., 2013). Existing data on each of the current study participants' scores on the WPPSI-IV or WISC-V was collected.

All teachers in the second and fourth-grade consented to participate in data collection. General Studies and Judaic Studies teachers in second and fourth-grade (N: 10) completed surveys on their perceptions of their students' levels of engagement and disaffection. Teachers also consented to be observed in their classrooms during their instructional time. All teachers are female and have been teaching more than five years. In both second and fourth-grade, two teachers only taught General Studies, two teachers only taught Judaic Studies, and one teacher in each grade taught both General and Judaic Studies. All participating General Studies teachers had received bachelors' degrees and masters' degrees in Education. One fourth-grade Judaics teacher and two second-grade Judaics teachers did not have a bachelors' or masters' degree in Education.

Measures and Instrumentation

This needs assessment examined students' reported levels of behavioral and emotional engagement and disaffection in both General Studies and Judaic Studies. It also measured students' perceptions of relatedness in the classroom environment and their implicit theories of intelligence. Teachers' instructional practices were observed. Students' cognitive abilities were measured using previously collected data from the

WPPSI-IV or WISC-V, which is administered by licensed psychologists as part of the school's admissions process.

Student engagement. In the current study, student engagement will be measured using the student report and teacher report of the Engagement vs. Disaffection with Learning survey (Skinner et al., 2008a, 2009c). This survey measures behavioral engagement, behavioral disaffection, emotional engagement, and emotional disaffection. Skinner and colleagues (2009a) use the term disaffection to characterize a student's passivity, anxiety, frustration, and boredom in a classroom setting that may lead to disengagement.

Behavioral engagement. The behavioral engagement subscale on the student and teachers' reports of the Engagement vs. Disaffection instrument (Skinner et al., 2008a, 2009c) is comprised of items measuring students' active involvement and participation in learning. The behavioral disaffection subscale is comprised of items measuring students' avoidance of learning, absence of effort, or withdrawal from classroom activities. Measures of disaffection were reverse-coded so that higher scores reflect lower levels of disaffection.

Emotional engagement. The emotional engagement subscale on the student and teacher reports of the Engagement vs. Disaffection in Learning instrument (Skinner et al., 2008a, 2009c) measures students' enthusiasm, sense of belonging, and value of learning. The emotional disaffection subscale measures students' apathy, anger, anxiety, frustration and sadness in the learning environment. Measures of disaffection were reverse-coded so that higher scores reflect lower levels of disaffection.

Student report. The Engagement vs. Disaffection with Learning Student Report (Skinner et al., 2008a) is a 25-item survey. Students reported their levels of engagement and disaffection in learning using a 4-point Likert scale. Five items measure behavioral engagement, five items measure behavioral disaffection, six items measure emotional engagement, and nine items measure emotional disaffection. On the student report, internal consistency reliabilities were adequate (.70 or higher) and cross-time correlations revealed a high degree of stability (average r = .62) in the scoring of the instrument (Skinner, Kindermann, & Furrer, 2008). A full copy of the Engagement vs. Disaffection with Learning Student Report can be found in Appendix A.

Teacher report. The Engagement vs. Disaffection with Learning Teacher Report (Skinner et al., 2009c) is a 16-item survey. Teachers completed a report for each student, and rated their students' behavioral engagement, behavioral disaffection, emotional engagement, and emotional disaffection using a 4-point Likert scale. Each subscale within this report has four items. Score reliabilities for the teacher report were all above .80 and inter-individual stability across time was moderately high (average r = .74) (Skinner et al., 2009c). A full copy of the Engagement vs. Disaffection with Learning Teacher Report can be found in Appendix B.

Implicit theories of intelligence. Students' implicit theories of intelligence were measured through the Children's Motivational Framework Questionnaire, a six-item scale developed by Gunderson et al. (2013) and then modified by Park et al. (2016). This measure asked children about their beliefs regarding the stability of intelligence through questions related to math, reading, spelling, and spatial abilities on a 5-point Likert scale. All items were reverse-coded so that higher scores reflected a higher entity framework

while lower scores reflected a higher incremental framework. Park et al. (2016) confirmed the reliability of this measure with coefficient Omega reliability estimates of .70 and .82. A full copy of the Children's Motivational Framework Questionnaire can be found in Appendix C.

Sense of relatedness. Students' sense of relatedness to teachers and classmates was measured through the Relatedness to Social Partner Survey (Furrer & Skinner, 2003). Twelve questions intended to measure relatedness to classmates and teachers were used and assessed students' feelings of being valued or disregarded by classmates and by their General Studies and Judaic Studies teachers. Questions about a negative sense of relatedness were reverse-coded so that higher scores reflected a greater sense of relatedness. Items were measured using a 4-point Likert scale. The instrument yielded alpha values for Relatedness to Teachers of .79 and Relatedness to Peers of .81. A full copy of the Relatedness to Social Partner Questionnaire can be found in Appendix D.

Instructional practice.

Instructional approach. Instructional practice was observed using the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013). This rubric is based on Weimer's (2013) Learner-Centered Teaching framework, which assesses the degree to which a classroom environment is student-centered or teacher-centered by documenting five dimensions of a classroom including: (a) the role of the teacher; (b) the balance of power; (c) the function of content; (d) student responsibility for learning; and (e) the learning potential in assessments. Within each dimension, descriptors operationalize the features of a learner-centered or teacher-centered environment. Points are then assigned by an observer to each descriptor and

tallied up to a total number of points, which reflects the type of classroom environment. To achieve trustworthiness of this measure, the researcher triangulated data and observers, and conducted member checking of the collected data. Furthermore, the researcher regularly debriefed the process of data collection with her dissertation adviser (Creswell, 2011; Shenton, 2004). A copy of the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013) is in Appendix E.

Data Collection and Data Analysis Methods

All data collection instruments were administered by the author during school hours and within the classroom environment. All students were very familiar with the author prior to data collection. Classroom teachers were not present while students completed surveys, so as to ensure that students felt as comfortable as possible answering the questions honestly. Students completed all surveys on iPads or computers through the Qualtrics survey platform. All students were told that all surveys are anonymous. They were also informed that they were going to answer questions about how they feel about learning in school and what they think about the ways that people are smart. Students were given as much time as they needed to complete the surveys. Surveys were read aloud to all students. Data was imported to Statistical Package for the Social Sciences (SPSS) and analyzed for descriptive statistics and group statistics. Paired t-tests were run to compare subsamples within the participant sample.

Teacher observations occurred over the course of several months by the author. The Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013) was scored by adding the number of descriptors chosen from each column of descriptors (learner-centered, transitional, teacher-centered). The

sum of each column was multiplied by 2 for the learner-centered column, by 1 for the transitional column, and by 0 for the teacher-centered column. The three products were then added up to a total score, where a total of 0-13 scored as a teacher-centered classroom, 14-25 as a transitional classroom, and 26-38 as a learner-centered classroom. Each observation's total score was recorded to arrive at a cumulative score of the presence of an AS/SC approach to instruction. An entire Judaics lesson, ranging from 30 to 45 minutes, was used as the unit of observation.

The author does not have any supervisory or evaluative relationship with the teachers and all teachers consented to observation. Scores from the WPPSI-IV and WISC-V tests and Judaic Studies curriculum guide were retrieved from the school administrative office with permission from school administration.

Summary of Results

The main purpose of this needs assessment was to identify the degree to which second and fourth-grade students at a private Jewish day school are academically engaged or disaffected by their learning and to compare levels of engagement between grades and between General and Judaic Studies. An additional purpose was to identify whether teachers' perceptions of student engagement were congruent with student reports. Findings from the analyzed data indicate significant differences in engagement and disaffection among grade levels and between General and Judaic Studies.

Grade-level Differences

Results from this needs assessment reflect that second-grade students reported significantly higher levels of behavioral and emotional engagement and lower levels of emotional disaffection in General Studies and Judaic Studies than fourth-grade students.

There was no statistically significant difference between second and fourth-grade students in their reports of behavioral disaffection in General Studies or in Judaic Studies. Whereas second-grade students reported relatively high levels of behavioral and emotional engagement, fourth-grade students reported being only moderately engaged in behavioral and emotional dimensions. This aligns with prior research findings that engagement steadily declines throughout a student's years in school (Balfanz et al., 2007; Morgan & Fuchs, 2007; Wigfield & Eccles, 2002). Both second-grade students and fourth-grade students reported moderate levels of behavioral and emotional disaffection. No significant gender differences were found in levels of behavioral engagement, behavioral disaffection, or emotional disaffection. Female students reported feeling more emotionally engaged in their learning than male students.

While this data reflects students' levels of engagement and disaffection are not critically low, it does reflect that students, particularly fourth-grade students, are not as engaged as they could be. With the majority of students demonstrating high cognitive potential and lacking the potential risk factors associated with low socioeconomic status, the reasons behind an absence of high levels of behavioral and emotional engagement and the presence of moderate levels of emotional disaffection are worthy of further investigation.

Table 2
Comparison of Engagement in GS and JS

	Mean	Standard Deviation	Sig. (2-tailed)
GS v. JS Behavioral Engagement	.60656	2.55786	.069
GS v. JS Emotional Engagement	.90000	3.32785	.040
GS v. JS Behavioral Disaffection	.52542	3.55429	.261
GS v. JS Emotional Disaffection	1.23214	8.84409	.302

Table 3
Paired Samples Correlation

	N	Correlation	Sig.
GS v. JS Behavioral Engagement	61	.337	.008
GS v. JS Emotional Engagement	60	.393	.002
GS v. JS Behavioral Disaffection	59	.236	.071
GS v. JS Emotional Disaffection	56	.114	.402

Comparing General Studies and Judaic Studies

Findings indicate that both second-grade students and fourth-grade students are significantly more behaviorally engaged and emotionally engaged in General Studies.

Comparing Teacher Report with Student Report

In examining whether teachers' reports of their students' engagement matched student reports of engagement, findings highlight that both General Studies teachers and Judaic Studies teachers perceived their students as being more behaviorally engaged than students' self-reported levels of behavioral engagement. General Studies teachers perceive their students are significantly less behaviorally disaffected than students reported about themselves. General Studies teachers and both second and fourth-grade students did not differ in their reports of emotional engagement or disaffection. In

contrast, Judaic Studies teachers differed in their perception of students' levels of emotional disaffection and rated students as being more emotionally disaffected than the students rated themselves in Judaic Studies. The incongruity between student reports and teacher reports of engagement suggests that teachers believe that their students are more engaged in learning than students report that they are. It is possible that teachers may perceive students as engaged when they are in fact, merely being compliant and may be overlooking that students are not demonstrating an active and enthusiastic involvement in their learning.

Table 4
Teacher Report vs. Student Report

	Mean	Standard Deviation	Significance (2-tailed)
GS Teacher Report of Behavioral Engagement vs. GS Student Report of Behavioral Engagement	-3.76471	3.83291	.001
JS Teacher Report of Behavioral Engagement vs. JS Student Report of Behavioral Engagement	-3.58824	4.48691	.005

Underlying Factors of Engagement and Disaffection

Individual factors. In examining underlying factors that may be contributing to students' moderate levels of engagement and disaffection, data was collected on students' implicit theories of intelligence and sense of relatedness to classmates and teachers. Findings indicate that students reported neither a strong entity framework nor incremental framework. These results are expected based on the developmental phase of elementary school students, who generally do not solidify a motivational framework until fifth or sixth-grade (Cain & Dweck, 1995; Mahatmya et al., 2012). All students reported a

relatively high sense of relatedness to Judaic Studies teachers, General Studies teachers, and peers. There was no statistically significant difference in theories of intelligence or sense of relatedness based on grade or gender. Data on students' theories of intelligence and senses of relatedness do not indicate that students' levels of engagement or disaffection are related to beliefs about intelligence or a sense of belonging.

Instructional practice. When observing teacher instructional practice over the course of several weeks, results reflect that all Judaics Studies teachers within this context utilize a teacher-centered approach to classroom instruction, with the teacher acting as the subject matter expert who is giving over information to students, and with students having minimal choice within the classroom environment (Center for Excellence in Teaching and Learning, 2013). Using the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013), all observation scores, which ranged from 8-13 points, fell within the teacher-centered approach. This teacher-centered approach was confirmed in conversations with Judaic Studies teachers at KDS regarding the ways in which they structure their instructional time. All Judaic Studies teachers shared that they use a whole-group frontal teaching approach, where students are expected to learn skills and content through memorizing information and vocabulary. Teachers then provide a review sheet, which they fill out together as a class, and which is the basis for the unit assessment.

While Judaic Studies teachers use a teacher-centered approach according to the features of a learner-centered classroom as defined by the Center for Excellence in Teaching and Learning (2013), General Studies teachers' scores fell within the low-range of a transitional teaching approach. A transitional approach to classroom instruction

combines predominantly teacher-centered practices with some elements of learner-centered practices (Center for Excellence in Teaching and Learning, 2013). With research highlighting the positive relationship between an autonomy-supportive, student-centered learning experience and student engagement, these findings suggest that instructional practices in Judaic Studies are contributing to students' lower levels of engagement in this academic domain.

This needs assessment sought to explore the degree to which elementary school students are engaged in their learning at KDS, and to identify factors that may be influencing low levels of engagement. Data analysis indicated valid and reliable findings that students are significantly less engaged in Judaic Studies than in General Studies, and that a teacher-centered instructional practice in Judaic Studies may be the predominant driving factor.

CHAPTER 3

Introduction

Elementary school students at Kehillah Day School (KDS) report significantly lower levels of engagement in Judaic Studies learning than in General Studies learning (Weissman, 2017). Findings from a needs assessment at KDS (Weissman, 2017) suggest that teachers' predominantly traditional, teacher-centered instructional approach contributes to students' lower levels of engagement in Judaic Studies. Data collected from this needs assessment also indicates that students' sense of relatedness and implicit theories of intelligence do not negatively impact students' levels of engagement in either academic domain. It is possible to surmise, however, that a controlling, teacher-centered instructional approach, as compared to a student-centered approach, is a significant underlying factor contributing to the comparatively lower levels of engagement in Judaic Studies, and as such, is worthy of further consideration as the driving factor and focal point of this current study's intervention.

Theoretical Frameworks

Theories of motivation and engagement offer various lenses to understand what drives a person to exert sustained effort, enthusiasm, and psychological investment in pursuing and accomplishing a task or goal. When applying theories of engagement and motivation to education, research explores both what drives students to sustain energized effort and psychological investment in their learning, and what teachers and schools can do to support this effort and investment (Anderman et al., 2002; Connell & Wellborn, 1990; McCormick & Plucker, 2013; Reeve & Halusic, 2009; Wigfield & Eccles, 2000). Self-determination theory (Deci & Ryan, 1985; Ryan & Deci, 2000) and Expectancy-

value theory (Wigfield & Eccles, 2002) are the primary theoretical frameworks that serve as the organizational schema for the current study and shed light on the relationship between a teacher-centered learning environment and low levels of student engagement.

Self-Determination Theory

Self-determination theory (SDT) (Deci & Ryan, 1985; Ryan & Deci, 2000) is an organismic metatheory and proposes that human beings, throughout their entire lifetime, are naturally inclined to pursue their innate psychological needs of competence, autonomy, and relatedness. *Competence* is the degree to which a person is able to exercise their capacities, achieve an outcome, and thus feel successful (Ryan & Deci, 2013). Within a learning environment, students feel competence when they succeed at tasks that are optimally challenging and when they receive positive feedback about their capabilities and achievement from peers and teachers (Deci et al., 1991; Lee & Hannafin, 2016; Ryan & Deci, 2013). *Autonomy* is the ability to initiate and regulate one's own actions by one's own volition (Ryan & Deci, 2013). Students perceive themselves as autonomous when they perceive that they have choice in their learning and are willingly engaged in the learning tasks, when they understand the rationale for why tasks are important or necessary, and when teachers design the learning tasks through considering the student's frame of reference (Gillet, Vallerand, & Pelletier, 2012; Jang et al., 2010; Ryan & Deci, 2013). *Relatedness* is the feeling of connectedness within a given social context, whereby a person feels fully and securely accepted by and connected to others. Students will experience relatedness within a school environment in which teachers show care and affection to students while also clearly communicating reasonable expectations and limitations of acceptable behavior within the classroom. Positive peer relationships

wherein students provide each other emotional support, talk and listen to one another, and share learning experiences further contribute to a student's feeling of relatedness (Furrer & Skinner, 2003; Furrer et al., 2014).

Extrinsic and intrinsic motivation in self-determination theory. SDT posits that a person's motivation is either extrinsically controlled or intrinsically self-determined. When motivation is controlled, a person's goal-directed actions are regulated by external conditions and by the desire to comply to an externally imposed standard. Self-determined motivation, by contrast, is motivation which is driven completely by a person's volition and sense of self. Here, one's actions toward accomplishing a goal stem from intrinsic interests and desires, and thus bring a sense of pleasure and joy (Deci & Ryan, 1985; Saeed & Zyngier, 2012). When the needs of competence, autonomy, and relatedness are fulfilled, human beings develop adaptively, feel intrinsically motivated, and engage optimally in achieving goals and sustaining positive relationships (Deci & Ryan, 1985; Deci et al., 1991; Ryan & Deci, 2000; Skinner et al., 2009a).

There is a continuum of motivation, from least self-determined to most self-determined (see figure 6). A person is extrinsically motivated when they engage in a task or activity for a purpose other than pure enjoyment and satisfaction. Extrinsic motivation spans four types of regulated behaviors: External regulation, the least autonomous motivation, is when a person is driven to act by reward or by avoidance of punishment. Introjected regulation is when a person is motivated by a sense of obligation or guilt. Identified regulation is a self-determined and autonomous form of extrinsic motivation, wherein a person identifies with the importance of an activity or behavior. Integrated regulation, the most self-determined and autonomous form of extrinsic motivation, is

when a person's motivation is fully assimilated into their sense of self and personal values. Intrinsic motivation is the highest form of self-determination, wherein a person engages in a task or activity for the pure enjoyment of participating in it.

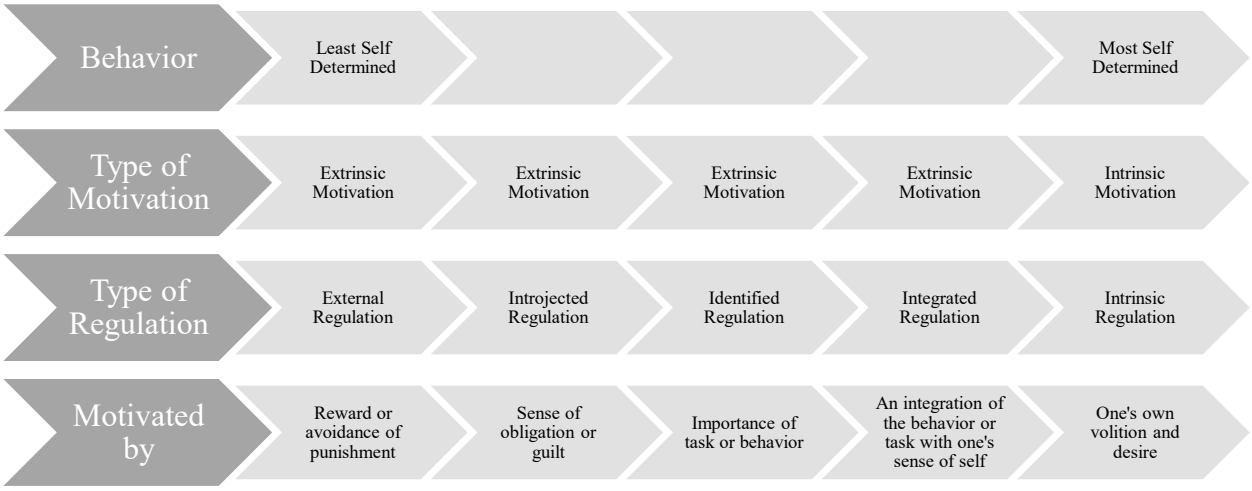


Figure 6. Self-Determination Theory Continuum of Motivation

The role of the environment in self-determination theory. A central premise of SDT is that a social environment that supports the fulfillment of competence, autonomy, and relatedness will engender more intrinsically motivated and self-determined actions (Ryan & Deci, 2000). Applied to an educational context, the school is the predominant environment that supports or undermines student motivation and engagement, to the degree that it facilitates student competence, autonomy, and relatedness. If a learning environment, however, elicits students' feelings of incompetence, of being controlled by others, and of social rejection, students will likely be driven to achieve through external contingencies and will be more likely to feel disaffection for learning (Deci et al., 1991; Jang et al., 2010; Irvin et al., 2011; Furrer et al., 2014; Skinner et al., 2009a). The finding that teachers utilize a highly-controlling, teacher-centered approach to teaching Judaic

Studies sheds light onto why students may be demonstrating comparatively low levels of engagement within this content area. This type of instructional approach undermines students' perceptions of their own competence and autonomy and obviates task value or relevance beyond teacher approval and high grades. (Reeve, 2006; Urdan & Schoenfelder, 2006; Wigfield & Eccles, 2000).

The self-system model of motivational development. The self-system model of motivational development (SSMMD) (Connell & Wellborn, 1991; Skinner et al., 2008b) is a framework within the metatheory of self-determination and focuses on the influence of various contexts on a person's fulfillment of their needs for competence, autonomy, and relatedness. Predicated on Ecological Systems Theory (Bronfenbrenner, 1979), the SSMMD contends that the context of a school and the instructional practices of a teacher shape a students' self-systems and self-processes, including cognitive appraisals, attributions, expectancies about success and failure, competence, autonomy, and self-perceptions. A teacher's provision of warmth, structure, and autonomy-support will yield positive self-systems or self-processes, while a teacher who uses rejection and control within a chaotic learning environment will bring about a student's negative self-systems and self-processes. The positive or negative nature of these self-systems determines the degree to which a person's needs of autonomy, competence, and relatedness are met, which in turn, influences whether a person's actions within the given context are engaged or disaffected. Consequently, engagement and disaffection impact the ability to learn and achieve within a school context. Predominantly negative self-concepts and self-systems in a particular domain lead to maladaptive developmental outcomes, while predominantly positive self-concepts and self-systems engender adaptive developmental outcomes

(Connell & Wellborn, 1990; Dupont et al., 2014; Skinner et al., 2009a; Skinner & Pitzer, 2012). That is to say, the degree to which a person is engaged or disaffected acts as the proximal process through which positive or negative cognitive, social, and personality development occurs. This framework, as depicted in figure 7, underscores the importance of the school environment and classroom context in shaping students' self-systems, and in turn, cultivating engagement in learning and overall adaptive development through helping students feel autonomous, competent, and connected to the social environment.

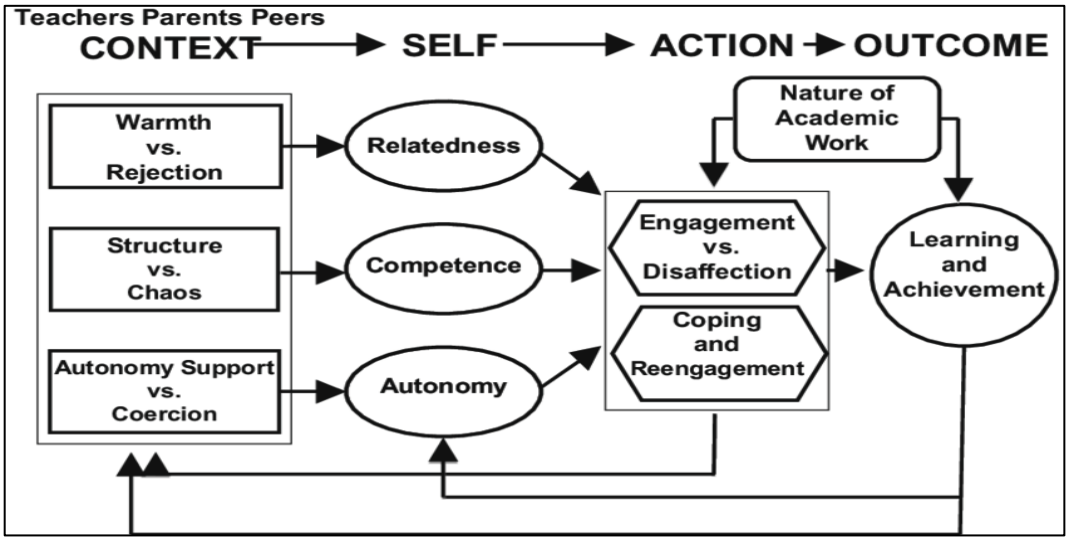


Figure 7. Self-System Model of Motivational Development (Skinner & Pitzer, 2012).

Expectancy-Value Theory of Motivation

The Expectancy-value theory of motivation (Wigfield & Eccles, 2000, 2002) indicates that people are motivated to engage in some tasks and activities rather than others. This theory posits that motivation and engagement are driven by expectancies, which are a person's expectations about their ability to successfully achieve a goal, and the degree to which they value the task. This theory asserts that a person's task choice, persistence, and performance are determined by the answers to the questions "Do I think I will succeed at this task?" and "How much do I value this task?". The greater the

student perceives a likelihood of success and the more significant the value a student assigns to the task, the more motivated and engaged a person will be towards its achievement (Eccles et al., 1983; Eccles et al., 1998; Wigfield & Eccles, 2002). Perceptions of likelihood of success and the level of task value work in tandem with the "cost" of the task. The concept of cost is defined as the way in which a person assesses the potential limitations or risks involved in pursuing a specific task. When a person measures the cost of the task, they are assessing whether the effort they may put forth is worth it.

Developmental Considerations in Student Engagement

Hypotheses such as SDT (Deci & Ryan, 1985; Ryan & Deci, 2000), the SSMMD (Connell & Wellborn, 1991; Skinner et al., 2008b), and Expectancy-value theory (Wigfield & Eccles, 2000, 2002) all assert that adaptive and healthy child development is largely supported by a synchrony between a child's individual capacities and their familial, school, and peer contexts (Skinner et al., 2009b; Wigfield & Eccles, 2000). In their discussion of the relationship between student engagement and child development, Mahatmya et al. (2012) argue that each period of childhood development brings with it developmental tasks, which are defined as the changes and challenges that a child is meant to experience and overcome. These tasks can either hinder or support a student's engagement in learning. Conversely, a student's engagement in learning can strengthen the successful achievement of developmental tasks. The neurological, biological, cognitive, physical, and emotional growth and changes over childhood are critical to consider when conceptualizing what student engagement looks like through different

periods of childhood, and how engagement can be understood within the aforementioned theoretical frameworks.

Middle Childhood

Middle childhood (ages 6 to 12) is the specific developmental period of interest for this study. Within this stage of development, children are expanding their intellectual capacities, and are developing mastery and competence in academic and physical skills (Mahatmya et al., 2012). Children slowly begin to demonstrate metacognitive abilities, and display growing capabilities for mathematical, spatial and scientific reasoning, in addition to learning how to express ideas through oral language and written language (Immordino-Yang, Darling-Hammond, & Krone, 2018). Whereas the home environment is the most impactful learning environment in the early childhood years, the classroom becomes the most important learning environment in middle childhood. Within the classroom, children need to learn to collaborate, play cooperatively, work in teams, strengthen their operational reasoning, literacy and math skills, and begin to develop a capacity for self-evaluation (Immordino-Yang et al., 2018; Mahatmya et al., 2012). Immordino-Yang et al. (2018) assert that throughout middle childhood, children benefit from learning opportunities that are structured but that afford them experiences to teach and learn from peers, to invent and try out ideas, and to strengthen a sense of competence as a learner and as a social being. With natural and gradual maturity as a key contributor to the self-regulatory skills necessary to accomplish many of the tasks of middle childhood, it is essential to recognize that the expectations of what engagement in learning looks like may present differently in boys and girls during this developmental phase, with girls often developing 20% faster than boys up until the adolescent years

(Aamodt & Wang, 2011). Similarly, engagement in learning may present differently in students with learning differences or with attentional challenges.

Development of academic self-concepts. The interplay of social context, children's self-concepts, and children's engagement in learning is underpinned by an understanding of child development. Young children's initial self-concepts and ability beliefs are largely undifferentiated and inaccurate, thus leading them to misperceive and inflate likelihood of success or task value. This misperception may keep students engaged in learning, as they are not necessarily disaffected by lower expectancies for success. However, children begin to refine their ability beliefs and the value that they assign to different academic domains around first-grade (Cain & Dweck, 1995; Mahatmya et al., 2012; Wigfield & Eccles, 2000). Although children in the early primary grades begin to understand the relationship between ability and effort, they do not yet connect this understanding to guide their goal setting to intentionally use behavioral strategies towards that goal (Miele et al., 2013).

The refinement of academic self-concept and motivational processes continues throughout middle childhood, with students developing more accurate assessments of their intelligence, ability, and competence as they progress through elementary school. A more nuanced self-concept also solidifies children's inclination towards social comparison with peers (Mahatmya et al., 2012). This social comparison often drives an overall decline in children's expectancies for success, evaluation of their own competence, and as such, engagement and motivation in learning (Marks, 2000; Martinek et al., 2016; Wigfield & Eccles, 2000). As the school context places increasing emphasis on test scores, academic evaluation, and achievement with each progressive grade level,

children develop an increased focus on self-evaluation and are generally less intrinsically motivated (Martinek et al., 2016). By entry into middle school in fifth-grade or sixth-grade, children have a coherent academic self-concept that guides their motivational framework (Cain & Dweck, 1995; Wigfield & Eccles, 2000). This accounts for the fact that student engagement declines most steeply in the transition from elementary school to middle school, and why the high school years emphasize academic success in terms of competitive achievement (Balfanz et al., 2007; Wigfield & Eccles, 2002). It moreover highlights the importance of supporting children throughout their elementary school years in adaptive development of their self-systems and self-concept. The adaptive development of self-concept is driven, in part, by a student's perceptions of autonomy, competence, and relatedness within their learning environment. As such, in structuring a classroom to support student autonomy and build students' competence, teachers are working to cultivate an adaptive set of ability beliefs for each of their students.

Religious and spiritual development. It is necessary to understand the progressive development of a child's religious and spiritual self, when considering student engagement in the context of Judaic Studies education. Although not everyone reaches all stages, Fowler (1981) theorizes that faith develops in six stages over one's lifetime. According to this approach, elementary school-aged children are in their mythic-literal stage of development, during which they are engaged with and unquestionably accepting of religious stories, myths, and doctrine as truth. Children in this stage conceptualize religious stories and rules in literal terms and assign anthropomorphic attributes to an all-powerful God (Shire, 2011). Within a structured religious community, the mythic-literal stage of faith development coincides with the age at which children

typically begin their formal religious education and begin to integrate their more concrete operational understanding of the world around them with the natural childhood disposition of wonderment and awe (Hyde, 2010; Shire, 2011).

A Jewish day school provides the context through which children's religious identities and spirituality can develop (Schein, 2013). With results of the needs assessment revealing that elementary school students are far less engaged in their Judaic Studies learning than in their General Studies learning, KDS may not be effectively nurturing their students' spiritual development and positive Jewish identity to the optimal degree (Weissman, 2017). This not only points to the school's potentially depleted effectiveness in fulfilling its educational mission, but to possible negative implications for students' spiritual development, religious identity, and overall adaptive development (Cohen-Malayev et al., 2014; Glanville et al., 2008; Scales et al., 2014; Schein, 2013; Shire, 2011).

The Role of the Classroom Context and Instructional Practice in Student Engagement

As children enter elementary school, the classroom context becomes the predominant influence in cultivating or limiting students' engagement with learning, and in this study's context of interest, encourages or discourages students' engagement with Judaic studies learning and religious identity development (Cohen-Malayev et al., 2014; Irvin et al., 2011; Skinner et al., 2009a). With research indicating that student's self-perceptions of competence, autonomy, and belonging in the classroom environment positively impact their engagement in learning, the question of what instructional practices and what type of learning environment mediate this relationship is critical to

explore (Dupont et al., 2014; Jang, 2008; Jang et al., 2010; Reeve, Jang, Carrell, Jeon, & Barca, 2004; Skinner et al., 2009a). Rooted in SDT, the SSMMD, and Expectancy-value theory, extensive research points to the significant disadvantages of a teacher-centered, controlling learning environment, as identified in Chapter One, and the positive outcomes of classroom environments with student-centered teaching and learning practices (Hood-Cattaneo, 2017; Lin-Siegler et al., 2016; McCormick & Plucker, 2013).

Student-centered Learning Environments

A student-centered, or learner-centered environment embodies a group of instructional strategies whereby students build their own learning experiences and "reconstruct knowledge dynamically in an open-ended learning environment" (Lee & Hannafin, 2016, p. 708). Implicit in this approach is the teacher's provision of autonomy-support, whereby a teacher listens to and considers student input, offers feedback that is informative in addition to summative and evaluative, designs challenging and relevant learning activities, and provides students with choice about the process or content of their learning (Cheon et al., 2018; Deci et al., 1991; Jang et al., 2010). Within an autonomy-supportive, student-centered (AS/SC) learning environment, a teacher functions as a facilitator and guide, rather than as an authoritative expert providing direct instruction. Through "optimally guided learning" (Lee & Hannafin, 2016, p.708) opportunities, teachers provide students the agency and support to identify individual learning goals, research inquiries, and construct knowledge through meaningful hands-on, student-driven activities (Buck Institute for Education, 2015; Center for Excellence in Teaching and Learning, 2013; Lee & Hannafin, 2016; Whitlock & Brugar, 2017). This study will

therefore refer to this instructional approach and learning environment as autonomy-supportive, student-centered (AS/SC) teaching and learning.

AS/SC teaching and learning. AS/SC learning draws from Constructivist theory and brings together the work of Piaget (1952; 1985), Dewey (1902; 1986; 1990), Bruner (1960), and Vygotsky (1978), in the belief that students actively construct and organize their knowledge and understanding through constant interactions with the social and physical environment (Hood-Cattaneo, 2017). AS/SC teaching and learning include the active learning pedagogies of problem-based, discovery-based, project-based, inquiry-based, and case-based learning. For the purposes of this study, the author will not focus on a specific active-learning pedagogy, but will consider the broader application of student-centered learning pedagogies through the six key features of student-centered learning environments including classrooms that are (a) learner centered; (b) focused on process and content of learning; (c) focused on interdisciplinary learning; (d) focused on teacher-student and peer collaboration; (e) focused on student reflection; and (f) focused on intrinsic motivation (Hood-Cattaneo, 2017; Froyd & Simpson, 2008).

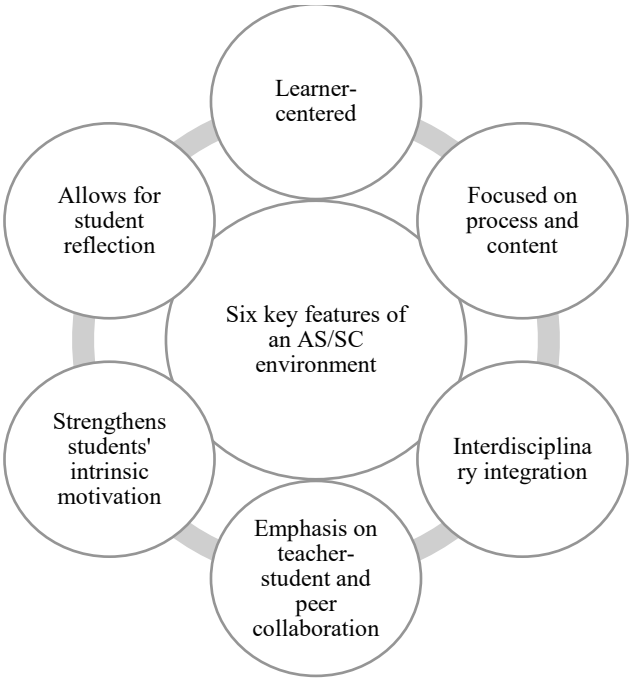


Figure 8. Six Key Features of an AS/SC environment

Weimer (2013) offers a complementary perspective on AS/SC learning environments by delineating the five focal areas that are necessary to address in shaping a student-centered classroom including (a) the balance of power; (b) the function of content; (c) the role of the teacher; (d) the responsibility for learning, and (e) the purpose and processes of evaluation. In a student-centered classroom, power over the learning process is shared responsibly between teacher and student; the function of content is less about covering a certain amount of the curriculum and far more about developing learning skills and deepening knowledge; the role of the teacher is of guide, facilitator, and designer of learning experiences; and the goal of evaluation is to promote further learning and deeper understanding, rather than to assign grades. Regardless of the specific definitional framework utilized, overarchingly, AS/SC classrooms emphasize student self-direction, with the goal of developing skills and content knowledge and

helping a child to become a learner who is an "autonomous and self-propelled thinker with a love and capacity for learning after formal schooling" (Bruner, 1961, p. 2; Hood-Cattaneo, 2017).

Outcomes of AS/SC teaching and learning. AS/SC teaching and learning is evidenced to increase student motivation, engagement, and positive attitudes towards learning, in addition to strengthening students' concept mastery, knowledge retention, and content transferability (Barron & Darling-Hammond, 2008; Hood-Cattaneo, 2017; Lattimer & Riordan, 2011; Taboada Barber et al., 2017; Whitlock & Brugar, 2017). Students' skill development in an AS/SC learning environment has been found to be either equivalent to or greater than that which they developed through traditional teacher-driven instruction (Barron & Darling-Hammond, 2008; Filippatou & Kaldi, 2010; Hovey & Ferguson, 2014; Lattimer & Riordan, 2011). While AS/SC teaching approaches have been criticized as teaching with "minimally guided instruction" (Kirschner, Sweller, & Clark, 2006, p.1), Hmelo-Silver, Duncan, and Chinn (2007) point out that AS/SC teaching requires significant scaffolding and guidance from teachers and still necessitates the use of direct instruction to teach skills or introduce specific content. This is echoed in Reeve's (2006, 2016) research on the importance of providing structure within an autonomy-supportive learning environment through clearly and regularly communicated rules, routines, and expectations, standards and goals for learning, and organizational strategies. Underpinned by a carefully structured learning environment, children in an AS/SC classroom learn skills and content and meet learning standards within a context of relevance and applicability (Hmelo-Silver et al., 2007; Mitchell, Foulger, Wetzel, & Rathkey, 2009). Outcomes of equivalent or greater skill development, increased concept

mastery, increased long-term retention, and increased critical thinking skills have been evidenced for students as young as kindergarten throughout higher education, and for students with diverse learning capacities (Hovey & Ferguson, 2014; McCombs et al., 2008; Young-Jones, Cara, & Levesque-Bristol, 2014).

AS/SC pedagogies for students with learning differences. The value of an AS/SC approach to teaching and learning is particularly relevant when considering diverse learning profiles, as it allows students to build upon their prior knowledge and access information within their specific level of understanding and skill (Hovey & Ferguson, 2014; Lee & Hannafin, 2016). In their research on the effectiveness of project-based learning (PBL) with elementary school students with learning disabilities, Fillipatou and Kaldi (2010) and Kaldi, Fillipatou, and Govaris (2011) found that students enriched and expanded their knowledge through the multi-sensory, hands-on approach of PBL, in addition to increasing their self-efficacy and task value. Kaldi et al. (2011) caution, however, that support needs to be given to students for whom the open-ended and self-directed nature of a PBL environment may be difficult to navigate. This echoes the importance of structure within an AS/SC learning environment. With adaptation of manipulatives and materials based on the specific needs of the students, PBL offers promise for the achievement and motivation of students with learning differences, whereby teachers explicitly teach and adapt approaches for students to generate their own learning opportunities and construct knowledge through building upon their prior knowledge and curiosities (Lee & Hannafin, 2016).

***Gifted students*.** An AS/SC approach to learning also offers proven benefits to high achieving and gifted students. Wang, Huang, and Hwang (2016) found that in

addition to increases in achievement, gifted and non-gifted students both made comparable gains in their problem-solving ability and learning motivation when learning through a PBL approach to mathematics. McCormick and Plucker (2013) argue that student-centered learning is essential to engage gifted students in their learning, in that it allows learning to be interactive as students delve into curiosities and pace themselves either independently or in small groups. Gifted students who may deem school as irrelevant without the context of a general education or mixed ability classroom can engage in various and simultaneous learning activities that feel relevant and that are open-ended enough to require critical thinking and problem solving for students of varying cognitive abilities.

AS/SC pedagogy in religious education. Although the research on best instructional practices in religious education is limited, literature supports a student-centered and hands-on approach to religious education, while it also recognizes the pull that exists between such a pedagogy and the authoritative discourse approach to religious education, where teachers prioritize the transmission of dogmatic religious knowledge to their students (Afdal, 2015; Hassenfeld, 2017; Holtz; 2003; Hyde, 2010; van der Zee, Hermans, & Aarnoutse, 2008; Vermeer, 2012). This tension is present within the research on Jewish education, where scholars point to the importance of literacy and transmission of Jewish knowledge alongside the deeply embedded values of questioning and critique within the Jewish tradition (Hassenfeld, 2017; Holtz, 2003; Rosenak, 2003; Shire, 2011). Holtz (2003), one of the foremost scholar on the pedagogy of Jewish sources, argues that while Jewish educators are "deeply involved in the enterprise of cultural transmission" (p.37), and as such, are charged with the responsibility to transmit a body of knowledge

and specific competencies to their students, they are simultaneously responsible for providing students with the experience of engaging and interacting with the ideas, concepts, and traditions they are teaching. The balance of the "mimetic" tradition of education, where teaching is "the transmission of factual and procedural knowledge from one person to another" (p.38) with the "transformative" tradition of education, where teaching is aimed at bringing about "a transformation of one kind or another in the person being taught" (p.39) sits at the heart of the current problem of practice addressed in this study, where Judaic studies teachers feel the responsibility to transmit a body of knowledge to their students, but where students are not necessarily receiving an education that is transformative in nature.

The argument for an AS/SC approach to religious education is amplified by considering tenets of cognitive science and childhood spiritual development (Afdal, 2015; Hyde, 2008; Hyde, 2010; Schein, 2013; Shire, 2011). Challenging the notion of religious education as an act of transmission, Afdal (2015) argues that an effective religious education requires learning through interaction with other students and with symbolic and material tools and experiences. Van der Zee et al. (2008) further highlight the importance of experiential and participatory learning in religious education in that it strengthens students' positive religious identity formation.

Hyde (2008, 2010), Shire (2011), and Schein (2013) all stress the need for religious educators to recognize that children make meaning of the world around them through their sense of wonder. Accordingly, religious education should provide avenues through which children can ask meaningful questions, discuss and wonder openly, and explore religion and spirituality through a variety of modalities. A religious education

classroom, therefore, should build upon what Hyde (2010) terms children's religious "dispositional framework" (p.261) which include children's curiosities, questions and conversations, problem-solving, meaning-making, and interests. Schein (2013) applies Hyde's (2010) thesis to the framework of Jewish education, in suggesting that a Jewish day school environment naturally offers opportunities for children to develop deep connections, belief, wonderment and awe, which in turn, can nurture their spiritual development.

Meaning-making and relevance. An AS/SC pedagogic approach is predicated on authentic learning and real-world application, increases student perceptions of relevance and value, and in turn, strengthens their motivation and engagement in learning (Barron & Darling-Hammond, 2008; Fillippatou & Kaldi, 2010; Lam, Chen, & Ma, 2009; Lee & Hannafin, 2016; Wigfield & Eccles, 2002). Considered within a Jewish educational context, these findings are particularly relevant as scholars are calling for a paradigm of Jewish education that is more learner-centered, meaningful, and focused on the twenty-first century skills of creating, connecting, communicating, collaborating, and thinking critically (Krakowski, 2011; Lattimer & Riordan, 2011; Pomson, 2011; Woocher, 2012). AS/SC teaching and learning in Judaic Studies provides a framework through which students can drive their religious learning experience and find personal meaning and relevance in their Jewish education (Hassenfeld, 2018; Leibowitz & Ornelas Otero, 2017; Pomson, 2011; Woocher, 2012).

Potential challenges in AS/SC teaching and learning. An extensive body of literature underscores the positive correlation between AS/SC pedagogy and student engagement in learning, with a particularly compelling argument for the importance of

this approach within a religious educational framework. However, adopting this approach within a Judaic Studies elementary classroom poses the challenge of adapting teacher beliefs around pedagogy, especially given the added dimension of the arguably sacred responsibility to transmit Jewish knowledge that Judaic Studies teachers feel (Hassenfeld, 2018; Holtz, 2003; Krakowski, 2011; Pomson, 2011).

Teachers' orientations. The approach that a teacher takes in how they teach, what they emphasize, and how they structure classroom instruction can either hinder or support a students' achievement and engagement in learning (Ryan & Deci, 2013). This is particularly important to consider in the realm of religious education, where teachers' orientations to their subject matter are often rooted in deeply held religious beliefs (Holtz, 2003). A teacher's orientation to teaching is the way in which their knowledge and beliefs, both about teaching and about the specific subject matter, shape how and what they choose to teach (Grossman, 1990; Holtz, 2003), thus forming what Holtz argues is their "interpretive stance" (p.47). Galili-Schachter (2011) builds upon Grossman's (1990) and Holtz's (2003) discussion of teacher orientation in her argument that teachers are often not consciously aware of their orientation, or what Galili-Schachter (2011) terms, their pedagogic hermeneutic orientation (PHO). A teacher's PHO is based on deeply ingrained values and ideologies that touch upon the questions of what the goals of education are, what "good teaching" looks like, what is considered a legitimate approach to religious education, and what is the best way to achieve these goals.

Holtz (2003) argues that there are nine varied orientations to teaching the Bible, which include (1) a contextual orientation, (2) a literary criticism orientation, (3) a reader-response orientation, (4) a Jewish interpretive orientation, (5) a moralistic-didactic

orientation, (6) a personalization orientation, (7) an ideational orientation, (8) an action oriented orientation, and finally, (9) a decoding, translating, and comprehension orientation. Teachers often adopt multiple orientations, which together, comprise the organizational framework they use to guide their instruction and goals for their students. Holtz (2003) extends his explication of orientations to teaching the Bible in suggesting that certain orientations are typically present in different educational settings. In a school context, such as KDS, where the Judaic Studies teachers are Orthodox Jews and are teaching through an Orthodox perspective, teachers often adopt a combination of the Jewish interpretive orientation, moralistic-didactic orientation, and the decoding, translating, and comprehension orientation. Put differently, Orthodox Jewish day schools place an emphasis on students' decoding, translating, and comprehension of biblical Hebrew, alongside the importance of teaching students the traditional Jewish commentaries on the Bible, and using the lessons of the Bible as a moral guide and as the evidence for observing mitzvot or commandments. These schools face the particular challenge of implementing an AS/SC to teaching Bible, given the transmissive nature of a curricular approach that prioritizes intensive skill development, teaching traditional commentaries and utilizing the Bible as a means for character education.

Teacher change. Adopting an AS/SC approach to teaching requires teachers to relinquish a degree of control within a learning environment and curriculum they are accustomed to controlling (Clark, 2006; Mitchell et al., 2009). Extensive research points to the gradual, difficult, and multifaceted process of changing teachers' practices, beliefs, and attitudes, and to the various system, school, and individual supports and barriers that influence teacher change (Clarke & Hollingsworth, 2002; Darling-Hammond, Hyler, &

Gardner, 2017; Guskey, 2002; Jensen, Sonnemann, Roberts-Hull, & Hunter, 2016). The introduction of a new pedagogic approach, which may challenge teacher beliefs and practices, could likely elicit teacher resistance and skepticism. As such, school leaders would need to develop and sustain goal-directed professional learning experiences for teachers that would build capacity, require an investment of time, human capital, and money, and would be continuously evaluated for fidelity of implementation and effectiveness (Brand & Moore, 2011; Calvert, 2016; Jensen et al., 2016; Mitchell et al., 2009; Spillane, Reiser, & Reimer, 2002).

Conceptual Framework

The conceptual framework for this study is predicated on the theoretical frameworks of Expectancy-value theory (Wigfield & Eccles, 2000, 2002), SDT (Deci & Ryan, 1985), and SSMMD (Connell & Wellborn, 1991; Skinner et al., 2008a). As exhibited in figure 9, this study asserts that an AS/SC approach to teaching and learning will lead to greater student engagement, mediated by an increase in the level of student autonomy, a higher degree of student expectancies for success, an increased degree of value for the tasks and for the learning, as well as increases in students' perceptions of competence. Higher levels of student engagement will increase or sustain students' skill development and content knowledge.

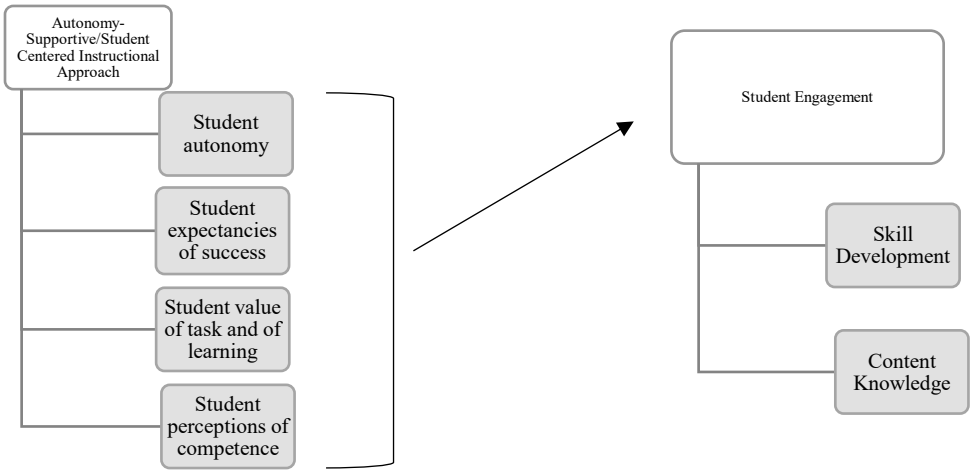


Figure 9. Conceptual Framework

Proposed Intervention

The teacher-centered, transmissive pedagogic approach to Judaic Studies at KDS, whereby religious knowledge and content is authoritatively provided to students through direct, lecture-style instruction and through an emphasis on rote memorization, minimizes the degree to which students deem learning tasks in Judaic Studies valuable beyond the school environment and limits students' perceptions of their competence and autonomy. While this approach to teaching may accomplish the goal of passing on information to students, this authoritative instructional practice stands in opposition to the research on AS/SC teaching and learning and is a primary driving factor of students' low levels of engagement in Judaic Studies learning (Urdan & Schoenfelder, 2006; Weissman, 2017). As such, any intervention to address the low levels of engagement in Judaic Studies will need to focus on designing a learning environment and instructional approach Judaic Studies to foster students' sense of competence and autonomy.

The current study involved the implementation of an AS/SC pedagogic approach to Judaic Studies. To design an intervention within the confines of the allotted time of the

study, the author focused the intervention specifically on the Bible Studies component of the school's Judaic Studies curriculum. Within the Jewish day school context, Bible Studies encompasses both the formulaic skill development of reading, translating, analyzing, and interpreting specific portions of the Hebrew Bible as well as the broader conceptual knowledge of familiarity with biblical characters, places of geographical significance, vocabulary, events, concepts, and phrases within the narrative arc of the Hebrew Bible (Exler, 2016). In focusing the intervention on Bible Studies, the author explored changes in engagement as well as in skill development and content knowledge when students learn a Bible unit through different pedagogical approaches.

Judaic Studies teachers at KDS attended an 18-hour workshop in the Summer of 2018 as a professional learning opportunity where they (a) learned the theory and practical application of an AS/SC instructional approach, and (b) collaboratively developed one month-long unit of the Bible curriculum per grade-level as an AS/SC unit of study. In the 2018-2019 school year, participating teachers implemented their newly designed units of Bible in their third and fourth-grade classes. The author utilized a mixed-methods embedded non-equivalent comparison group design, where participating teachers and their students comprised the treatment group, and the non-participating teachers and students served as the control group (Newcomer et al., 2010). At the conclusion of the intervention, students in control and treatment groups completed the same teacher-designed, standardized grade-level assessment to demonstrate their skill development and content knowledge. The assessment was developed using the standards and benchmarks for that specific unit of Bible instruction (Exler, 2016; Weissman, 2017).

All participants also completed the Engagement versus Disaffection in Learning, Student Report (Skinner et al., 2008a) to measure their levels of engagement in learning Bible.

Conclusion

Based on the author's review, an AS/SC approach to teaching the Hebrew Bible can increase students' engagement while sustaining or increasing their skill development and content knowledge. The author therefore conducted an intervention whereby participating teachers implemented Bible units that were structured to be AS/SC within their homeroom classes. While the adoption and execution of this approach to teaching poses challenges including the need for extensive training, time management, inadequate staffing, and incongruous scheduling structures, research suggests that teaching through an AS/SC can yield benefits for both students and teachers, thus enhancing the classroom climate as a whole (Reyes et al., 2012).

CHAPTER 4

Introduction

Research points to the positive association between autonomy-supportive, student-centered (AS/SC) teaching and learning, and increases in student engagement, skill development, and content knowledge (Barron & Darling-Hammond, 2008; Filippatou & Kaldi, 2010; Whitlock & Brugar, 2017). The author proposed that an AS/SC approach to Bible study in the third and fourth-grade will address the problem of elementary school students' comparatively low levels of engagement in Judaic Studies when compared to General Studies.

Research Questions

To identify the potential influence of an AS/SC pedagogy on students' engagement, skill development and content knowledge in Bible, the following research questions (RQ) guided this study:

RQ1. Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' engagement in learning in comparison to students who learned the same content through a traditional, teacher-centered approach?

RQ2. Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' skill development in that academic domain, in comparison to students who learned the same content through a traditional, teacher-centered approach?

RQ3. Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' content knowledge in that

academic domain, in comparison to students who learned the same content through a traditional, teacher-centered approach?

Research Design

The author utilized Newcomer et al.'s (2010) continuum of evaluation approaches to guide the process and outcome evaluation design for the proposed intervention (Weissman, 2017). By combining formative and summative program evaluations, the author identified the strengths and weaknesses within the implementation process and evaluated whether the desired outcomes of increased student engagement, skill development, and content knowledge were achieved (Newcomer et al., 2010; Rossi, Lipsey, & Freeman, 2004). In using an embedded mixed-methods evaluation approach, the author gathered qualitative data on the experience of implementation for both teachers and collected quantitative data to identify fidelity of implementation and levels of student achievement and engagement (Burch & Heinrich, 2016). The author used a participatory approach to both program and evaluation implementation, involving teachers and administrators in generating program goals and in analyzing evaluation data (Rossi, Lipsey, & Freeman, 2004; Weissman, 2017). By sharing the needs assessment data with participating teachers, the author framed this study as addressing a relevant and compelling problem of practice. This participatory approach to program development aligns with significant research that points to the importance of teacher agency and involvement in designing improvement goals and of using data that speaks to specific classroom challenges that matter to teachers to guide professional learning and change initiatives (Calvert, 2016). The mixed-methods data and the participation of stakeholders in evaluation is important in using the utilization-focused evaluation information to drive

longer-term changes in instructional practice and corresponding school policies (Burch & Heinrich, 2016; Newcomer et al., 2010; Strosberg & Wholey, 1983).

Process Evaluation

A process evaluation is a systematic method of assessing the implementation and experience of an intervention. This is conducted through an evaluation of specific indicators of program implementation, including context, participant responsiveness and barriers to implementation. In conducting a process evaluation, the author was able to identify the success or lack thereof of specific components of the intervention, to then better understand the mechanisms that yielded any identified outcomes (Saunders, Evans, & Joshi, 2005).

Process evaluation questions. The following questions guided the process evaluation of this study:

- Did the participating teachers identify the relative utility of using an AS/SC approach for a unit of their Bible curriculum, as measured through semi-structured interviews and participant reflection journals?
- Did participating teachers deliver a full implementation of the intervention program, as measured by teacher attendance logs, complete delivery of curricular components of the chosen unit of Bible instruction, and adherence to an AS/SC approach for the duration of the unit as measured through Learner-Centered Rubric for Observation (Center for Excellence in Teaching and Learning, 2013)?
- Did participating teachers perceive collegial and supervisory support regarding their adoption of an AS/SC to Bible instruction?

- What barriers caused by scheduling or staffing structures, if any, were identified by participants or by the author, as hindering the process of program implementation?

Evaluation of program implementation. Program implementation involves the accuracy of the program's reach, dosage delivered and received, and fidelity (Linnan & Steckler, 2002). In the current study, program implementation is defined as (a) 100% teacher participation and 75% student participation; (b) complete delivery of all the curricular components of the chosen unit of Bible instruction; and (c) adherence to an AS/SC approach for the month-long duration of the unit. Measures included teacher attendance logs, signed consent forms, and checklists of curricular components to cover, along with the Learner Centered Rubric for Observation (Center for Excellence in Teaching and Learning, 2013). Evaluating program implementation helps identify potential causal inferences between AS/SC teaching and a change in student engagement and skill development (Weissman, 2018).

Evaluation of implementation context. The context of an intervention refers to the environment in which implementation occurs (Baranowski & Stables, 2000). In this study, the author examined context through participants' perceptions of collegial and supervisory support for the adoption of an AS/SC approach to Bible instruction. This will be qualitatively measured through an analysis of the author's field notes, teacher reflection journals, and teacher interviews. The author's Theory of Treatment (ToT) and Logic Model (LM) hypothesize a relationship between participants' perceived collegial and supervisory support and the outcomes of broader adoption of the pedagogy, increased student engagement, skill development and content knowledge (Lotter & Miller, 2017;

Price, 2015; Thoonen, Sleegers, Oort, Peetsma, & Geijsel, 2011; Weissman, 2018). Evaluating participants' perceptions of support indicates whether the presence or absence of support may have contributed to the hypothesized the outcomes (Weissman, 2018). The ToT and LM can be found in Appendix F.

Fidelity of implementation: Participant responsiveness. In this study, participant responsiveness is the degree to which teachers willingly and positively implemented an AS/SC approach to Bible instruction. This was qualitatively measured through teacher reflection journals, semi-structured interviews with teachers, and the author's field notes. As reflected in the author's ToT and LM, willingness to implement a new pedagogy serve as a precursor to the successful implementation of an AS/SC approach (Lotter & Miller, 2017; Price, 2015). The presence or absence of these underlying processes can further identify process components that contributed or hindered its successful implementation (Saunders, Evans, & Joshi, 2005).

Barriers. Assessing barriers in a process evaluation refers to evaluating the obstacles that may impede the success of a program (Baranowski & Stables, 2000). In this current study, potential foreseen barriers include scheduling limitations as a result of the school's dual-curriculum or staffing structures that may not support AS/SC learning. It includes potential barriers to complete teacher participation. This was qualitatively measured through teachers' reflection journals, semi-structured interviews, and the author's field notes.

Process Evaluation Indicators

The author measured specific indicators of program implementation, context, participant responsiveness and barriers to implementation. As reflected in the Process

Evaluation Data Collection Matrix (Appendix G), these indicators serve as metrics of the degree to which the program was implemented as intended by the author and the roles of context, participant responsiveness, and barriers in the process of implementation.

Teacher sustained participation. This indicator identified the degree to which the third and fourth-grade participating teachers sustained participation in the intervention. This participation is an essential input as reflected in the author's logic model and will be measured, by the author, through daily teacher attendance logs and classroom check-in logs for the duration of the intervention (Weissman, 2018).

Student participation in intervention. Student participation refers to the number of third and fourth-grade students who assent and whose parents provide consent to the completion of a survey at the culmination of the intervention. This indicator is measured by the number of consent forms received by the end of participant recruitment and was collected by the author throughout the recruitment phase of the program. Student participation is a necessary component of program implementation, as students are a target audience identified in the author's LM, are the recipients of the intervention and target of potential change (Weissman, 2018).

Implementation of AS/SC approach to unit of Bible instruction. The adherence to an AS/SC approach to a unit of Bible served as an indicator of the fidelity of implementation. This was measured through the Learner Centered Rubric for Observation (Center for Excellence in Teaching and Learning, 2013). Both the author and one third-party observer evaluated the ongoing implementation of this approach by observing teachers' classroom implementation, twice-weekly for 30-45 minutes, for the duration of the intervention. As reflected in the author's ToT, an AS/SC approach was

hypothesized to be the overarching mechanism of influence and change within this proposed intervention (Barron & Darling-Hammond, 2008; Filippatou & Kaldi, 2010; Lattimer & Riordan, 2011). As such, it was essential to understand the quality and extent to which this approach was delivered and received, so to potentially infer causality between this method of instruction and changes in engagement, skill, and content knowledge.

Full dose of delivery of AS/SC unit of Bible. The dosage of the delivery of an AS/SC unit of Bible refers to the degree to which teachers delivered this approach for the duration of the intervention and utilized this approach to teach each component of the specified Bible unit. Participating teachers completed a detailed checklist of the curricular elements, skills, and content knowledge, that are essential to address within the particular unit of Bible they are teaching. This data collection was ongoing during classroom implementation, as teachers marked off each curricular component covered and classroom observations noted the completion of curricular components.

Participating teachers' beliefs and attitudes about an AS/SC approach. As reflected in the author's ToT, participating teachers' positive attitudes towards the implementation of the intervention were hypothesized to yield an increased adoption of an AS/SC approach to teaching Bible (Weissman, 2018). The degree to which participating teachers have a positive attitude and about this pedagogy was measured through (a) teachers' entries in reflection journals (b) semi-structured interviews with each teacher at the completion of the intervention.

Participating teachers' perceptions of collegial and supervisory support. As reflected in the author's ToT, the degree to which teachers perceive themselves as

supported by colleagues and supervisors will influence their willingness to adopt a new pedagogical approach and implement the intervention (Weissman, 2018). Teachers' perceptions of support from within their professional community was measured through (a) teachers' entries in reflection journals, and (b) semi-structured interviews, by a trained third-party interviewer, with each teacher at the culmination of the intervention. An interview format will be found in Appendix H.

Presence of barriers to implementation of AS/SC unit of Bible. The presence of barriers to implementation was measured through (a) teachers' entries in reflection journals, (b) semi-structured interviews, by a trained third-party interviewer, with each teacher at the culmination of the intervention, and (c) the author's field notes kept for the duration of the intervention. While this component of evaluation investigated the potential barriers of scheduling and staffing, the use of qualitative measures and the emergent coding of qualitative data allowed teachers and the author to reflect upon potential unforeseen barriers as well. This reflects whether potential barriers theorized in the author's LM were present and influential during program implementation and also indicates whether unforeseen barriers impacted the degree to which the program was successfully implemented (Weissman, 2018).

Process evaluation data collection and analysis.

Quantitative process evaluation data. Data regarding teacher sustained participation, student participation, and the full dose of delivery of an AS/SC approach to a unit of Bible instruction were measured through daily teacher attendance logs and classroom check-ins for the duration of the intervention (Weissman, 2018). This data was collected as descriptive statistics and did not undergo further analyses.

Qualitative process evaluation data. Data about teachers' experiences of unit implementation, beliefs about an AS/SC approach to instruction, perceptions of collegial support, and identification of barriers to implementation was collected through the author's field notes, teacher interviews at the culmination of the intervention and teacher reflection journals kept for the duration of the intervention.

Data analysis. Data from author field notes, teacher interviews, and teacher reflection journals were analyzed through emergent coding (Saldaña, 2009). After the author transcribed both teacher interviews, she reviewed the transcripts and divided each interview in entirety into topical statements. A topical statement is defined as a complete and coherent thought made by the teacher. Using emergent coding (Saldaña, 2009), the author identified the various overarching categories within which all topical statements were situated. By dividing the entirety of the interviews into topical statements and categorizing the topical statements into overarching themes, the author was able to account for the entirety of the interview content. The author reviewed the interviews multiple times to further identify any notable codes and themes which helped with data interpretation. A full codebook can be found in Appendix I.

Outcome Evaluation

Outcome evaluation design. To evaluate intervention outcomes, the author utilized a non-equivalent comparison group design within a quasi-experimental framework (Shadish, Cook, & Campbell, 2002). This regression-adjusted covariate design allowed for an untreated control group with dependent pre-test and post-test samples (Shadish et al., 2002). While the majority of studies on AS/SC interventions followed a quasi-experimental pre-test-post-test, the additional element of a comparison

group strengthens the ability within the current study to estimate causal inferences (Kokotsaki, Menzies, & Wiggins, 2016; Shadish et al., 2002). The assignment to treatment or control conditions was nonrandom. Students participated in a treatment or control group based on their homeroom classes, which are grouped heterogeneously for ability and include a relatively equal number of boys and girls (Weissman, 2017). Participating teachers implemented the intervention within their homeroom classes. Each participating grade level had two control groups and one treatment group. All assenting third and fourth-grade students whose parents provided consent for their participation participated. Two teachers participated in the treatment conditions and four teachers participated in the control groups.

Strengths and limitations of the research design. The author proposed the aforementioned outcome evaluation design because of specific strengths that this design offers. Although alternative designs, such as a randomized controlled trial or regression discontinuity, were not feasible based on the participant sample and organizational limitations within the author's professional context, the use of comparison groups along with a pre-test and post-test strengthened the ability to estimate valid causal inferences about the impact of an AS/SC approach to Bible on student engagement by providing more data upon which to build causal inference (Henry, 2010; Shadish et al., 2002). A regression-adjusted covariate design allowed for causal inferences to be estimated while taking the covariates of student gender and cognitive ability into account and thus limiting omitted variable bias (Henry, 2010). As Shadish et al. (2002) suggest, utilizing a pre-test and comparison group helps to identify threats to validity including selection bias, selection-instrumentation, selection-regression, and selection-history. Furthermore,

while a non-equivalent comparison group design with pre-test and post-test cannot yield the strongest causal inference, the design is well-suited to answer the question of whether there was a difference or change in student engagement when content was learned through an AS/SC approach.

The proposed non-equivalent comparison group design offered significant strengths given the limitations posed by the author's professional context and participant sample, but it also raised some threats to validity and areas of weakness. The nonrandom assignment of participants to treatment or control conditions presents the problem of selection bias and weakens the ability to make strong causal inferences. Shadish et al. (2002) highlight the broad extent of threats to validity that must be considered in a non-equivalent comparison group design, but also argue that close observation of the pattern of outcomes between the treatment and control group in a study of this design can help to differentiate possible threats from plausible threats.

Several challenges remain. The pre-test and post-test, although providing added data upon which to estimate causal inferences, pose a testing threat to validity, as exposure to a test may impact future performance on the same test (Shadish et al., 2002). By conducting the study within one school context rather than adding additional sites, there was a lack of sampling validity and thus an inability to establish external validity. The use of a grade-level unit assessment, created by each grade-level teaching team, poses threats of validity and reliability. To ensure face validity and content validity, the author arranged for ten Judaic teachers to evaluate the assessment and used a test-retest reliability approach to ensure that the assessment is reliable.

Outcome evaluation questions. The following questions guided the outcome evaluation of the current study:

- Was there a difference in engagement for students who learned a unit of Bible through an AS/SC approach in comparison to students who learned a unit of Bible through a traditional, teacher-centered (T/TC) approach?
- Was a there a difference in skill development for students who learned a unit of Bible through an AS/SC approach in comparison to students who learned a unit of Bible through a T/TC approach?
- Was there a difference in content knowledge for students who learned a unit of Bible through an AS/SC approach in comparison to students who learned a unit of Bible through a T/TC approach?

Hypotheses. The author proposes the following hypotheses:

- Students who learn a unit of Bible through an AS/SC approach (treatment group) will report higher levels of engagement in comparison to students who learn through a T/TC approach (control group), as measured by the student report of the Engagement vs. Disaffection with Learning survey (Skinner et al., 2008a).
- Students in the treatment group will demonstrate equivalent or increased skill development in articulated standards and benchmarks within the Bible curriculum in comparison to students in the control group, as measured by a grade-level unit assessment.
- Students in the treatment group will demonstrate equivalent or increased content knowledge based on articulated standards and benchmarks within the Bible

curriculum in comparison to students in the control group, as measured by a grade-level unit assessment.

Method

Participants

The participant sample included third and fourth-grade students and third and fourth grade Judaic Studies teachers at a private Jewish day school in a suburban area of a Mid-Atlantic state. Seventy-five percent of families in the school earn an income greater than $100,000 a year with thirty-five percent of families earning greater than $200,000 a year, as per school report on families' financial profiles. All students attending the school are Jewish and a significant majority of the students in the school are Caucasian. The school utilizes a dual-curriculum, teaching General Studies in the first 60% of the day and Judaic Studies in the remaining 40% of the day. Most students enter the elementary school in kindergarten or first-grade. The school has minimal additional enrollment after first-grade.

Student participants. Students were recruited through an opt-in consent form, which parents signed to provide permission for their child to participate in the study. The final third grade sample (n: 44) comprised of 77% of the total third grade student body (n: 34; Female: 13; Male: 21). The third-grade treatment group comprised 27% of the total number of third grade participants (n: 9, Female: 4, Male: 5), with the remaining 73% of the third-grade participants comprising the grade's control group (n: 25; Female: 9, Male: 16). The final fourth grade sample was 83% of the total fourth grade student body (n: 38; Female: 23, Male: 15). The fourth-grade treatment group comprised 32% of the total number of fourth grade participants (n:12; Female:7; Male: 5), with the remaining 68%

comprising the grade's control group (n: 26; Female: 16; Male:10). Two teachers – one per participating grade level -comprised the treatment group. The majority of participants scored between high average to very superior on the Wechsler Preschool and Primary Scale of Intelligence IV (WPPSI-IV) or the Wechsler Intelligence Scale for Children V (WISC-V), a standardized measure of cognitive ability, with no participant scoring below full-scale IQ score within the average range.

Table 5

Demographics of Student Participants

	3rd Grade Control	3rd Grade Treatment	4th Grade Control	4th Grade Treatment
Male	n: 16	n: 5	n: 10	n: 5
Female	n: 9	n: 4	n:16	n: 7
Total	n: 25	n: 9	n: 26	n: 12

Table 6

Student Participants' Full-Scale IQ from WPPSSI-IV or WISC-V

	3rd Grade Control	3rd Grade Treatment	4th Grade Control*	4th Grade Treatment
Well below average	0	0	0	0
Below average	0	0	0	0
Low average	0	0	0	0
Average	7	2	8	1
High average	13	6	7	7
Superior	4	0	7	3
Very Superior	1	1	0	1

*Note: One WPPSSI-IV score in the 4th grade control group was not valid because of missing subtests

Teacher participants. Judaic Studies teachers were recruited through an opt-in consent form. All Judaic Studies teachers in the third and fourth-grade consented to participate in data collection. Teachers in treatment classrooms consented to be observed in their classrooms during their instructional time, to keep reflection journals, and to participate in an interview at the culmination of the intervention. All teachers in both the control and treatment classrooms are female and all identify as Orthodox Jews. The teacher in the third-grade treatment classroom, Malka holds a bachelor's degree (B.A..) in Liberal Arts and a master's degree in Curriculum and has been teaching for 14 years. Rachel, the teacher in the fourth-grade treatment classroom, is 64 years old, has a degree from a religious teaching seminary but does not hold a B.A. and master's degree. She has been teaching for 47 years. There were two teachers in control classrooms in third-grade. One teacher, Leah, holds a B.A. and Master of Arts in Teaching (MAT), and has been teaching for 14 years. The other third-grade teacher, Tova, holds a teaching certificate from a religious teaching seminary, and has been teaching 22 years. In the fourth-grade control classrooms, one teacher, Chaya, holds a B.A. and a MAT, and has been teaching for 15 years. In the other fourth-grade control classroom, Sarah holds a B.A. and has been teaching for eight years.

Table 7

Teacher Training and Years of Experience, Control Group

Pseudonym	Degrees Earned	Years Teaching
Leah	B.A., MA	14
Tova	Teaching certificate	22
Chaya	B.A., MAT	15
Sarah	B.A.	8

Table 8

Teacher Training and Years of Experience, Treatment Group

Pseudonym	Degrees Earned	Years Teaching
Malka	B.A Master's in Curriculum and Instruction	14
Rachel	Teaching certificate	47

Measures

Autonomy-supportive, student-centered pedagogical approach. An AS/SC pedagogical approach is a group of instructional strategies whereby a teacher provides students the autonomy and support to identify individual learning goals, research inquiries, and construct knowledge through meaningful student-driven activities. When utilizing a student-centered approach, the teacher serves predominantly as a guide, support and facilitator of learning rather than an authoritative expert providing direct instruction (Buck Institute for Education, 2015; Center for Excellence in Teaching and Learning, 2013; Lee & Hannafin, 2016).

This pedagogical approach was measured using the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013). This rubric identifies five components of a learner-centered environment, which include (a) the role of the teacher, (b) the balance of power, (c) the function of content, (d) student responsibility for learning, and (e) the learning potential in assessments. For each of these categories, the rubric offers 3 to 5 descriptors of a teacher-centered classroom, a

transitional classroom, and a learner centered classroom, for a total of 19 descriptors overall. Sample rubric items are displayed in table 9.

Table 9

Sample Survey Items, Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013)

	Learner-Centered	Transitional	Teacher-Centered
The role of the teacher	*For the majority of the class session, the teacher acts as a resource person (giving constructive feedback, eliciting different approaches, encouraging repeated attempts, etc.), working to support and enhance student investigations.*	*Occasionally during the class session, the teacher acts as a resource person, working to support and enhance student investigations.*	*The class session consists predominantly of the teacher conveying information; students watch while the teacher works.*
The balance of power	*There is a high proportion of student talk related to content, and a significant amount of it occurs between and among students.*	*There is a high proportion of student talk related to content but usually between teacher and student.*	*There is very little student talk related to content; the teacher does most or all of the talking.*
Student responsibility for learning	*All or almost all students put effort into the class. If some students choose not to put in effort, the teacher is aware and takes action to engage them.*	*The majority of students put effort into the class. However, when they fail to put effort in, there are no consequences (the teacher seems to not notice or ignores the behavior).*	*The majority of students are not paying attention or putting effort into the class. The teacher does not seem to notice/care.*

Data collection. Observations were conducted in real-time by both the author and a trained third-party observer twice weekly for the duration of the unit. A complete 45-minute lesson of Bible was used as the unit of observation. During observation, observers identified the 19 descriptors that were most notably true about the Bible lesson. All teachers and students were very familiar with the author prior to data collection. The author does not have any supervisory or evaluative relationship with the teachers and all teachers consented to observation.

Data analysis. The rubric was scored by adding the number of descriptors chosen from each column of descriptors (learner-centered, transitional, teacher-centered). The

sum of each column was multiplied by 2 for the learner-centered column, by 1 for the transitional column, and by 0 for the teacher-centered column. The three products were then added up to a total score, where a total of 0-13 scored as a teacher-centered classroom, 14-25 as a transitional classroom, and 26-38 as a learner-centered classroom. Each observation's total score was recorded. At the end of the intervention, all observation scores were averaged to arrive at a cumulative score of the presence of an AS/SC approach to instruction.

To achieve trustworthiness of these measures, the researcher triangulated data and conducted member checking of the collected data. Furthermore, the researcher regularly debriefed the process of data collection with her dissertation adviser (Creswell, 2011; Shenton, 2004). A copy of the Learner-Centered Rubric for Observation (Center for Excellence in Teaching and Learning, 2013) is in Appendix E.

Teacher-centered, transmissive pedagogical approach. A teacher-centered, transmissive pedagogical approach is one in which the teacher singularly determines the specific skills, content, activities, materials, pace, and learning processes with which the students will engage (Clark, 2006; Froyd & Simpson, 2010; Hassenfeld, 2017). This approach positions the teachers as the experts on a given subject area and prioritizes the teaching of specific skills and information to students through lecture-based formats (Clark, 2006; Hassenfeld, 2017; Mitchell et al., 2009). In a teacher-centered classroom, learning is an act of student acquisition, in which the teacher adopts the role of "knowledge transmitter" (Lee & Hannafin, 2016, p. 710) and the student is the "knowledge receiver" (Lee & Hannafin, 2016, p.710). The goal of learning in a teacher-centered classroom is for students to understand the specific content and to accomplish

the learning tasks that the teacher has determined as important and of interest (Center for Excellence in Teaching and Learning, 2013; Lee & Hannafin, 2016).

Student engagement. Student engagement is the behavioral, emotional, and attentional effort, interest, and sustained involvement a student puts towards learning (Skinner et al., 2009a, 2009b). In this study, student engagement was measured using the student report of the Engagement vs. Disaffection with Learning survey (Skinner et al., 2008a). This survey measures behavioral engagement, behavioral disaffection, emotional engagement, and emotional disaffection. Skinner and colleagues (2009a) use the term "disaffection" to characterize a student's passivity, anxiety, frustration, and boredom in a classroom setting that can likely lead to disengagement.

Behavioral engagement. Behavioral engagement is defined as a student's effort, intensity, persistence, determination, and perseverance towards learning and task completion (Skinner et al., 2009a, 2009b). The behavioral engagement subscale on the student report of the Engagement vs. Disaffection (Skinner et al., 2008a) instrument is comprised of items measuring students' active involvement and participation in learning. The behavioral disaffection subscale is comprised of items measuring students' avoidance of learning, absence of effort, or withdrawal from classroom activities. Measures of disaffection are reverse-coded so that higher scores reflect lower levels of disaffection.

Emotional engagement. Emotional engagement is defined as the enthusiasm, enjoyment, and satisfaction a student feels about learning and school (Skinner et al., 2009a, 2009b). An emotionally disaffected student can experience anxiety, avoidance, boredom, frustration, and anger and can disengage behaviorally and cognitively because

of their negative feelings towards school (Reyes et al., 2012; Skinner et al., 2009a). The emotional engagement subscale on the student report of the Engagement vs. Disaffection in Learning instrument measures students' enthusiasm, sense of belonging, and value of learning. The emotional disaffection subscale measures students' apathy, anger, anxiety, frustration and sadness in the learning environment. Measures of disaffection are reverse-coded so that higher scores reflect lower levels of disaffection.

Student report. The Engagement vs. Disaffection with Learning Student Report is a 25-item survey. Students report their levels of engagement and disaffection in learning using a 4-point Likert scale. Five items measure behavioral engagement, five items measure behavioral disaffection, six items measure emotional engagement, and nine items measure emotional disaffection. On the student report, internal consistency reliabilities were adequate (.70 or higher) and cross-time correlations revealed a high degree of stability (average r = .62) in the scoring of the instrument (Skinner et al., 2008a). A full copy of the Engagement vs. Disaffection with Learning Student Report can be found in Appendix A. Sample survey items are found in table 10.

Table 10
Sample Survey Items, Engagement vs. Disaffection with Learning, Student Report (Skinner et al., 2008a)

Construct	Sample Survey Items
Behavioral Engagement	*I try to do well in class.* *In class, I participate in class discussion.* *I work as hard as I can in class.* *In class, I pay attention.*
Emotional Engagement	*When I'm in class, I feel good.* *Class is fun.* *When we work on something in class, I feel interested.* *I enjoy learning new things in class.*
Behavioral Disaffection	*I don't try very hard in class.* *In class, I do just enough to get by.* *When I'm in class, I think about other things.* *When I'm in class, my mind wanders.*
Emotional Disaffection	*When we work on something in class, I feel bored.* *When I'm in class, I feel worried.* *Class is not all that fun for me.* *When I'm in class, I feel bad.*

Moderating variables.

Demographic data. The author collected demographic data from teachers regarding their years of teaching experience and training, as research points to the complexity of adopting an AS/SC approach to learning (Clark, 2006; Mitchell et al., 2008).

Religious observance. The author also collected information on each student's familial level of Jewish observance. Students' levels of Jewish observance are an important area to explore, as familial factors can influence students' levels of engagement (Fan & Williams, 2010; Janosz, 2012). On the Qualtrics survey students completed, students completed a survey item that asked them to choose one of the following two options: "My family drives in the car and uses the phone or computer on Shabbat", or "My family does not drive in the car or use the phone or computer on Shabbat". This qualifying statement was used as an indicator as to whether students and their families abide one of the fundamental principles of Orthodox Judaism and was therefore used to identify students as either Orthodox or non-Orthodox.

Confounding variables. The author collected information on student gender and student cognitive ability as measured by school admissions records, which include each student's score on the Wechsler Preschool and Primary Scale of Intelligence IV (WPPSI-IV) or the Wechsler Intelligence Scale for Children V (WISC-V). Scores from the WPPSI-IV and WISC-V were retrieved from the school administrative office with permission from school administration.

Skill development. Skill development within the context of an elementary school Bible Studies curriculum is defined as a student's ability to progress towards and meet

grade-level benchmarks for reading, translating, analyzing, and interpreting specific portions of the Hebrew Bible (Exler, 2016). To measure skill development, the researcher and participating teachers collaboratively designed an assessment to evaluate the degree to which students meet grade-level benchmarks for text skills within their Bible unit. Assessments were specific to each grade-level.

Using a trained third-party interviewer, the researcher conducted semi-structured interviews with participating teachers, to investigate teachers' perceptions and comparisons of students' skill development when using an AS/SC approach versus a teacher-centered, transmissive approach to teaching Bible. Interviews lasted between 30 and 45 minutes. Trustworthiness of these measures was achieved through triangulation of methodologies, peer scrutiny, and review of the developed assessment by the school's Judaic Director of Education (Creswell, 2011; Shenton, 2004).

Content knowledge. Content knowledge within Bible Studies is defined as (a) a student's familiarity with biblical characters, places of geographical significance, vocabulary, events, concepts, and phrases, and (b) the student's ability to contextualize this content within the narrative arc of the Hebrew Bible (Exler, 2016). Rote memorization of this content is not reflective of a student's content knowledge. Rather, a student who has biblical content knowledge should be able to make textual and conceptual connections across biblical stories.

To measure content knowledge, the researcher and participating teachers collaboratively designed an assessment to evaluate the degree to which students are familiar with the content of the biblical unit of study and whether students can apply this knowledge within the larger narrative arc of the Hebrew Bible. Assessments were

specific to each grade-level. Using a trained third-party interviewer, the researcher conducted semi-structured interviews with participating teachers, to explore teachers' perceptions and comparisons of students' content knowledge in an AS/SC classroom versus a teacher-centered, transmission-focused classroom. Trustworthiness of these measures were achieved through triangulation of methodologies, peer scrutiny, and review of the developed assessment by the school's Judaic Director of Education (Creswell, 2011; Shenton, 2004).

Data collection. Data was collected by the author during school hours and within the classroom environment. All students were very familiar with the author prior to data collection. All teachers consented to observation. Classroom teachers were not present while students completed surveys, so as to ensure that students felt as comfortable as possible answering the questions honestly. Students completed all surveys on iPads or computers through the Qualtrics survey platform. All students were told that all surveys are anonymous. They were also informed that they were going to answer questions about how they feel about learning in Bible. Students were given as much time as they needed to complete the surveys. Surveys were read aloud to any students who needed reading support. Data on student skill development and content knowledge was collected from the end-of-unit assessments.

Data analysis. Data was imported to Statistical Package for the Social Sciences (SPSS) and analyzed for descriptive statistics and group statistics. Independent samples t-tests were run to compare the treatment and control group scores. Paired comparisons t-tests were run to compare the pre-test and post-test scores within the treatment group and within the control group. To identify the relationship between an AS/SC approach to

instruction and student engagement and achievement, data was analyzed through a two-way ANOVA.

Intervention Timeline

Table 11

Intervention Timeline

Time	Intervention Details
Summer 2018	Professional Learning Opportunity about AS/SC teaching and learning in Judaic Studies
Early Fall 2018	Weekly meetings to prepare for unit implementation; Pre-test
Fall/Winter 2018	Unit implementation (4-6 weeks)
Winter 2018	Assessment of skill development and content knowledge; Post-test Teacher interviews

Summer 2018

In the summer prior to the intervention, Judaic Studies teachers participated in a three-day, 18-hour professional learning opportunity where they were introduced to the concept of AS/SC teaching and learning. During this professional learning experience, teachers reflected on their current pedagogical beliefs and practices, and discussed potential application and integration of new pedagogies. As an exercise in considering the application of an AS/SC approach to teaching in Judaic Studies, teachers developed a comprehensive unit of their Bible curriculum (one per grade level) through this approach and collaboratively articulated the expected skill and content benchmarks for chosen Bible units, the content of the units, and an assessment of skill development and content knowledge for each of the units.

Early Fall 2018

The author, a teacher mentor at the study site, met weekly with teachers who had been recruited and agreed to implement the unit they had drafted during the summer

professional learning workshop. The author and participating teachers continued to plan and refine the unit of study, with the author providing instructional resources to support teacher preparation, including unit guides, and exemplars of AS/SC units of study (see Appendix J). The teachers were given the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013) for continual reference to the features of an AS/SC classroom. In alignment with research that highlights the importance of coaching, support, and teacher agency in successful change initiatives, the author worked to provide a framework of AS/SC learning for participating teachers, while teachers had autonomy to decide how the features of this approach would be embedded in their unit design (Calvert, 2016; Jensen et al., 2016).

Pre-test. Prior to the beginning of the implementation of the AS/SC unit, students in control and treatment classrooms completed the Engagement versus Disaffection in Learning student report (Skinner et al., 2008a) to report on their levels of engagement in their Bible curriculum.

Unit Implementation

The implementation of the AS/SC unit occurred over four weeks in the third-grade treatment classroom and over six weeks in the fourth-grade treatment classroom. During the implementation, the author was a participant/observer within the treatment classrooms. Towards this end, the author supported the teacher in executing the unit implementation by working with small groups of students or by coaching the teacher. While the author was not an active participant in the classroom learning daily, participating teachers knew that the author was available as a resource throughout the unit implementation. In the control classrooms, instruction remained unchanged from

prior units of Bible study. In treatment classrooms, teachers worked to provide instruction on the skill and content knowledge standards they had defined in designing their unit, while also offering students the opportunity to think more broadly about the themes of the unit. Several times during each week of implementation, the teacher collected field notes and supported the teacher in execution and implementation of the AS/SC approach. Participating teachers and the author met to reflect on practices and to work through any questions. Participating treatment teachers kept reflection journals about their thoughts, questions, and concerns as they planned to implement this unit. In the weeks prior to the implementation of the designed unit, the author increased meetings with teachers to twice weekly to ensure that teachers feel prepared.

Post-Intervention

Students in both treatment and control classrooms completed the same teacher-designed unit assessment. All students also completed the Engagement versus Disaffection in Learning, Student Report (Skinner et al., 2008a) at the culmination of the intervention. Assessment scores and student reports of engagement were tabulated and analyzed for statistical significance. At the culmination of the unit, teachers were interviewed by a trained third-party interviewer to reflect on the experience of implementing an AS/SC approach to a unit of Bible and on the likelihood of continued implementation of an AS/SC approach to Judaic Studies.

CHAPTER 5

Introduction

The current study sought to address elementary school students' comparatively low levels of engagement in Judaic Studies learning in comparison to General Studies learning. The author explored whether an autonomy-supportive, student-centered (AS/SC) approach to instruction would influence third and fourth-grade students' engagement in the Bible component of their Judaic Studies curriculum. In addition to looking at levels of student engagement prior to and following the intervention, the author collected data on students' skill development and content knowledge at the end of the unit of study. Through a non-equivalent comparison group design within a quasi-experimental framework, the author investigated changes in engagement within-subjects and between-subjects. This chapter details the process of implementation and reports and discusses the findings of process and outcome evaluation research questions.

Process of Implementation

Throughout the process of implementation, the author aimed to provide the participating teachers with the agency and autonomy to design their intervention units in ways that felt most comfortable to them. To this end, participating treatment room teachers were provided with the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013) so to have a visual and accessible reminder of the tenets of an AS/SC approach. Teachers were instructed that the goal for the unit was to provide students with the opportunity to be autonomous and self-directed in the process of their learning. Within this framework, they had the autonomy to choose how to structure their unit in terms of when and how to provide students with

opportunities for self-direction. The author's decision to support teachers' autonomy and agency throughout the process of implementation draws upon Lam, Cheng, and Choy's (2010) findings that teacher autonomy in implementing change initiatives increases their motivation for implementation and their likelihood of success. Drawing upon research that suggests that professional learning is most effective when teachers' learning experiences are embedded within their daily classrooms and are sustained over time (Calvert, 2016; Jensen et al., 2016), participating teachers received coaching and support throughout the unit of implementation. It is noteworthy that there is no formalized curriculum that the Judaic Studies teacher use in designing their Bible instruction. The following section describes the process of implementation of the current study's intervention and seeks to address and discuss the following process evaluation research questions through the implementation narrative:

- Did participating teachers identify the relative utility of using an AS/SC approach for a unit of their Bible curriculum?
- Did participating teachers deliver a full implementation of the intervention program?
- Did participating teachers perceive collegial and supervisory support regarding their adoption of an AS/SC to Bible instruction?
- What barriers caused by scheduling or staffing structures, if any, were identified by participants or by the author, as hindering the process of program implementation?

The author explored the process of implementation through an analysis of field notes and through semi-structured interviews with participating teachers and was particularly

interested in understanding the teachers' perceptions of the benefits and challenges of implementing an AS/SC approach to a unit of Bible, in addition to understanding any potential barriers the teachers identified as hindering the implementation process. The author was also interested in whether the teachers believed they would continue to adopt this approach to instruction. Although participating teachers were provided reflection journals in which to reflect on the process of implementation, neither participating teacher utilized the reflection journals except for writing an initial entry. While this negated the use of reflection journals as a source for data analysis, the lack of use of the reflection journals will be considered as part of the analysis of the process of implementation.

Malka

Malka is a 33-year-old Orthodox Jewish woman, who holds a bachelor's degree in education and a master's degree in curriculum and instruction. She has been teaching at KDS for 12 years and has been a classroom teacher for a total of 14 years. At KDS, Malka has taught both third and fourth-grade. Malka works on a third-grade Judaics team with two other teachers. The third-grade Judaics team plans their units and methods of instruction collaboratively, and each teaches a classroom of approximately 15 third-grade students. The third-grade schedule allots four 45-minute time slots throughout the week to teach Bible.

Malka's approach to teaching Bible. Prior to the current study, Malka and the other two third-grade Judaic Studies teachers worked collaboratively to plan their units and utilized the same materials and structure for instruction. For each unit, Malka began by having students create file folders for the unit, where they would file worksheets and

vocabulary lists. She then provided an overview and storyline for the unit with a PowerPoint presentation. Next, Malka previewed vocabulary and relevant root-words with magnetic flashcards and began to drill the students on the root words through daily review exercises. Using sentence strips for each verse of the chapter, she taught the specific verse and root-words, usually teaching one or two verses in a given lesson. All instruction was whole-group, with Malka standing in the front of the classroom, at the white board, and then circulating the room to check student work and to answer individual questions. Once Malka taught all the verses that comprised the unit, the students completed review sheets, which offered practice on the skill development and content knowledge that they would be tested on. Students also completed pages in the "Lesson Workbook", where they filled in worksheets about the ethical/moral lessons of the Bible chapter. As a summative assessment, students completed a paper-and-pencil test that was nearly identical to the review sheet they had completed. Document analysis of instructional materials, review sheets and assessments reflect an emphasis on rote memorization of root words, phrases, vocabulary, and answers to questions.

Malka's instructional approach to prior Bible units reflects a traditional, teacher-centered approach to instruction, wherein she singularly determined the specific skills, content, activities, materials, pace, and learning processes with which the students will engage (Clark, 2006; Froyd & Simpson, 2010; Hassenfeld, 2017). Within this structure, Malka is situated as a "knowledge transmitter" (Lee & Hannafin, 2016, p.710), and the students are meant to acquire the skills and knowledge that the teacher has specified as necessary. Malka's approach to teaching arguably mirrored many of the qualities of what she described as a "very traditional" experience of learning Bible as a student. When

Malka reflected on her own experience of learning Bible, she shared that "honestly, I don't remember much of what or how we learned at all" (personal communication, February 5, 2019). Although Malka both learned and taught Bible through a combination of a moralistic-didactic orientation and a decoding, translating, and comprehension orientation (Holtz, 2003), Malka's recollection of a somewhat forgettable experience of learning Bible echoes the criticisms within the literature on Jewish education about a myopic focus on the transmission of tradition, to the exclusion of a focus on cultivating a meaningful and personally relevant learning environment (Goodman & Katzew, 2011; Hassenfeld, 2016, 2017, 2018; Krakowski, 2011; Woocher, 2012).

Malka's AS/SC unit. Malka chose the 24th chapter of Genesis as the unit to design through an AS/SC approach. When initially developing this unit over the summer and early fall, Malka defined the skills, content knowledge, and enduring understandings that she wanted her students to know. The author provided Malka with a unit guide (Appendix J) that helped to structure her thinking about how to provide her students autonomy during this unit. In evaluating the essential questions and enduring understandings of this chapter in Genesis, Malka drafted the question: "What does it mean to act with kindness?". She wanted to emphasize the notion that kindness is not simply doing something nice, but that it is anticipating a need that someone may have and then helping to meet that need without necessarily being asked.

Malka planned to utilize direct instruction to teach the root words (*shorashim*), vocabulary, and to support students in practicing reading and translating the Hebrew bible. Although not a practice to which she was accustomed, she wanted to try to alternate between small group instruction where she worked with groups of four or five

students and whole group instruction during which she provided an overview of the story of the unit. Understanding that AS/SC learning and structure are complementary features in a classroom environment (Reeve, 2016), Malka sought to define the skills, content, and classroom expectations for her students, while simultaneously providing autonomy to her students through the experience of a Makerspace design challenge connected to the content knowledge and big ideas she wanted her students to understand. Using the theme of kindness (*chesed*) as a springboard and drawing upon the storyline and content from this unit, Malka designed a challenge for her students to create a functional object, within the school's Makerspace, that could be used to do an act of kindness for a person or community in need.

Full implementation. Full implementation of an AS/SC unit of Bible instruction was measured through author field notes and twice-weekly classroom observations utilizing the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013). During observation, observers identified the 19 descriptors that were most notably true about the Bible lesson. The rubric was scored by adding the number of descriptors chosen from each column of descriptors (learner-centered, transitional, teacher-centered). The sum of each column was multiplied by 2 for the learner-centered column, by 1 for the transitional column, and by 0 for the teacher-centered column. The three products were then added up to a total score, where a total of 0-13 scored as a teacher-centered classroom, 14-25 as a transitional classroom, and 26-38 as a learner-centered classroom. Each observation's total score was recorded. At the end of the intervention, all observation scores were averaged to arrive at a cumulative score of the presence of an AS/SC approach to instruction.

Based on the scoring of these rubrics, Malka's implementation of an AS/SC approach to instruction ranged from the top-range of a transitional approach, at 22 points, to the mid-range of a learner-centered approach, at 32 points, with a mean score of 27 points. This indicates that within the four weeks of Malka's unit, she was able to implement an instructional approach wherein (a) she served as the facilitator of learning, (b) students had some control over the learning process, (c) the content of the unit was used as a way for students to develop skills and strengthen their critical thinking skills, (d) students took responsibility for their role in the learning process, and (e) assessments included self-reflection and peer-assessment (Center for Excellence in Teaching and Learning, 2013).

Introducing the unit. Whereas Malka usually began her unit with a PowerPoint presentation of the main ideas that she wanted the students to learn through the unit, she started off her AS/SC unit by framing the challenge for her third-graders. She explained to them that based on what they would learn in this chapter of Genesis, they would need to define what it means to act with kindness and then, they would need to create something functional, in the school's Makerspace, that could help address a problem or need. By setting the stage for a challenge and providing her students with a tangible and meaningful goal, Malka provided meaning and real-world applicability to the unit (Lee & Hannafin, 2016). Reflecting on her introductory lesson, Malka noted that "It was great. They were so into it. They are already talking about all their projects and what they want to create" (personal communication, January 3, 2019). In the interview at the end of the intervention, Malka considered the impact of introducing her unit differently:

> When we started this unit, we said 'We have to learn all about chesed… because we're doing this special thing', and they got so excited. They got so into the discussion about the unit. They knew they were creating something, and they knew they were part of something bigger (personal communication, February 5, 2019).

Malka's reflections speak to the way in which creating relevance and meaning ignited a sense of excitement for her students, which was notably different to her than she had seen from her students prior to this unit.

Small group instruction. Although Malka's instructional approach was typically whole-group frontal teaching in prior units, she recognized that it may be efficient to utilize a small group instruction format so to provide direct instruction to groups of students, while other students could review skills independently or with partners, and others could begin working on their design challenge. The first day that Malka split the students into small groups to review skills and to begin their research while she provided direct instruction to a group of students, Malka left the day feeling deflated and discouraged. "It went horribly," she said. "They couldn't manage themselves in small groups" (personal communication, January 7, 2019). Malka's sense of a lack of control underscores the difficulty, as evidenced in research literature, of relinquishing a degree of control within the learning environment and the unfamiliarity of having students direct part of their own learning process (Clark, 2006; Mitchell et al., 2009). It also speaks to the need for considerable and sustained professional learning over time that supports the pedagogic changes that teachers are attempting to enact (Jensen et al., 2016). Despite the fact that Malka had received training in small-group instruction before, this instructional

approach was not supported within the typical pedagogic practices of the school environment, and as such, Malka did not have the opportunity to easily implement and develop a proficiency in the strategies and routines of small-group instruction.

In an attempt to find a comfort zone within new pedagogic territory, Malka decided that she would alternate between whole group instruction and small group instruction, using whole group time to teach the overarching ideas and storyline of the chapter. In small groups, Malka would provide students with opportunities to review and practice their skills. Through this model, Malka did not have to situate herself with only one group of students. Instead, she could support students as necessary around the classroom. With this modification, Malka was able to find a comfort in small group instruction. The author's field notes identify that during classroom observations, there was productive noise in the room. Children were working and thinking about the material, busied with various tasks around the room, while the teacher pulled small groups of children for support as needed, and worked one on one with students when necessary (observation, January 8, 2019).

Despite the stress it caused her initially, Malka shared the insight and confidence she had gained about utilizing a new instructional format:

> I do think that if I got used to it, I would be able to figure it out. I do…I could have them in the whole group or not but if I had them in the whole group then they weren't taking care of the project, and both were going on at the same time, so it was just easier to split them. I think if I got used to it more and had a concrete plan…I could probably do it well (personal communication, February 5, 2019).

Makerspace design challenge. A design challenge draws upon the principles of design thinking, a human-centered, creative, collaborative, process-oriented, and iterative approach to problem solving (IDEO, 2012). In posing a design challenge, Malka asked her students to consider a problem and possible solutions to that problem through a five-step process of (a) empathy and considering the experience of the people impacted by the problem; (b) defining the problem clearly; (c) ideating or brainstorming potential solutions to the problem; (d) prototyping the solution, and then (e) testing if the prototype was successful (IDEO, 2012). Design thinking in educational settings provides students the opportunity to think and act autonomously, develop competence through creating, failing, and problem-solving, and to work together with peers towards a common goal.

Empathy. During her rotation of small groups, Malka introduced the research component of the unit to her students. Each student was assigned a different charity organization to research, with the initial goal of then sharing about the organization with classmates. Through exploring their website or interviewing volunteers from the organization, students were able to learn about the various problems and areas of need that their organization sought to address. The organizations spanned Jewish, Israeli, American, and global causes. Malka wanted to make sure her students, although learning about kindness through a Judaic prism, understood that the concept is applicable to people and communities across the world and of all religions. The author spent several sessions with students in the classroom, serving as a co-teacher for the research component. Students reported their findings on Seesaw, an online platform and student portfolio, to share what they learned with their classmates. Through sharing their

research, students were exposed to various communities in need as a way of increasing their awareness of the experiences of those they were hoping to help.

Defining the problem. In small group brainstorming sessions facilitated by the author, students identified the various problems and communities in need that they had learned about. When students were not in their brainstorming groups, they continued to refine their skills and content knowledge through review, iPad games, and working one-on-one with Malka. To ensure that students were making the connection between their research and Makerspace challenge with their unit of Bible, Malka introduced each Bible lesson with a review of the three key events in the chapter of Genesis that highlighted the models of kindness Malka wanted to emphasize. Students were asked to identify the examples in the text so to integrate their ability to navigate the Hebrew bible and read and translate the relevant verses.

Ideation. After the small group brainstorming sessions, the class came together to review the various problems that they learned about: the lack of clean water in parts of the world, illness, emergency health crises, bullying, pollution, deforestation, and the multitude of needs that are present for homeless or impoverished communities including lack of food, toys, warm clothes for the winter, and books. As a whole class, the students then began to imagine possible ways that they could create something that could address one of these needs. The author encouraged the students to think as broadly as possible during this stage of the design challenge, and to keep focused on the needs and experience of the people they had learned about so to consider what needs they could anticipate people having. After compiling a comprehensive brainstormed list of potential solutions (see table 12), students decided what they wanted to work on, and whether they

wanted to work independently or collaboratively with others. Students drafted proposals for what they wanted to create and visited the Makerspace to compile a list of materials and to sketch and design what they would then prototype.

Table 12
Problem Definition and Solution Proposals

Problem or need	**Solution/Creation**
Pollution	Trash can
Not enough food for poor or homeless children	Totes and reusable boxes to then buy food and deliver to homeless shelter
Not enough toys for poor or homeless children	Stuffed animals, squishy toys, doll, toy cars
Bullying	Stress balls
Lack of clean water	Proposal to Head of School about drive to collect money for water filters
Not enough warm clothes for poor or homeless children	Scarves, gloves, blankets

Prototyping. The school's Makerspace is a room filled with recycled and donated materials and tools with which students are able to build, create, and invent. The walls of the room are lined with containers holding hundreds of different materials, from cardboard to bottle caps to fiberfill, and various tools like hot glue guns, rulers, fabric scissors, velcro, and magnetic tape. Electric outlets hang on wires over each table that students can pull down to access when they need to use them during their work. A laminated poster of the design process hangs at the front of the room, as a visual cue for students to use as they plan out their process of design and creation.

Students came in to their first Makerspace session with sketches of their item and material lists in hand. They quickly got to work, in groups and individually, collecting what they needed from around the room to begin their design. A group of children worked together on creating a stuffed animal and toy collection for homeless children who may not have toys of their own. One boy brought in his own sewing kit from home to help with the stuffed-animal shark he envisioned creating, while another girl began

cutting fabric and collecting fiberfill for the design of her emoji pillows, and another boy traced out different shapes of cars on cardboard and collected bottle caps to build toy cars for the children he imagined may need them. Two girls worked with Malka on measuring, tracing, and cutting out thick pieces of cardboard with which they will create boxes to then fill with food and deliver to a homeless shelter. Another child collected pieces of fleece and fabric to put together scarves for people who do not have adequate winter gear. Over the course of three 40-minute sessions in the Makerspace, students busily designed, created, and revised, often helping each other on projects that were not their own.

Similar to their lessons in the classroom, Malka began each Makerspace session with a focused prompt, to remind students of why they are doing this project. Students briefly discussed the three acts of kindness in the Biblical chapter that they learned before getting to work on their creations for people in need. At the end of the three sessions, students' creations were mostly complete. Both author field notes and Malka's reflections during the interview identify the excitement students expressed and demonstrated during this creation process.

Testing the prototype. The final step of the design challenge was for students to use the item they created to facilitate an act of kindness. Malka enlisted parents to help with the final step of this unit: having the children complete the act of kindness they started in their classroom and in the Makerspace. She sent home a note to each family explaining the purpose of the item and encouraging them to help facilitate the donation or use of the item.

Assessment. For the purposes of the current study and in keeping with the two other third-grade Judaics teachers, Malka utilized the same summative assessment that the other third-grade classrooms were using. Eighty-percent of the assessment focused on students' skill development and asked students to translate vocabulary through matching and fill-in-the-blanks, to translate biblical phrases and to identify the context of the specific biblical phrases, and to identify and translate the root words found in the unit. The remaining twenty-percent of the assessment was comprised of content knowledge questions, where students had to answer questions about the storyline, big ideas, and content of the biblical chapter.

Rachel

Rachel is a 64-year-old Orthodox Jewish woman who has been teaching Judaic Studies for 47 years. Rachel has been teaching fourth-grade for 40 years. Throughout the preparation for the unit and throughout the implementation, Rachel was forthright about her need for "handholding" (personal communication, December 31, 2018) from the author but also continuously expressed the excitement of trying something new and different. Rachel works on a team with two other fourth-grade Judaic Studies teachers, who all make sure to maintain an equal pace with units of instruction and who all use the same instructional materials but plan their teaching individually.

Rachel's typical approach to instruction. Rachel's schedule allotted her four 35-minute periods within which to teach the Bible curriculum. Rachel's class routine involved bridging the new unit to the prior story the students had learned. Rachel would always provide an introduction to the story "with a cliff-hanger". To learn the verses, Rachel would provide an introduction to the verse, would read and translate and have the

students follow along. Rachel would then ask questions to draw their attention to specific details. The students would chorally read the phrases after Rachel. Rachel would project the verse on the board and together, teacher and students would fill in the translation. To support understanding of biblical grammar, Rachel would identify necessary root words, highlight parts of a word to show the students, and then the students would copy it on to their vocabulary list of root words. Rachel would then attempt to answer the questions she had suggested at the beginning of the class. A similar format would be used during each lesson.

Rachel's AS/SC unit. Rachel chose the 41st chapter of Genesis as the unit to create through an AS/SC approach. When initially developing this unit over the summer and early fall, Rachel defined the skills, content knowledge, and enduring understandings that she wanted her students to have, with the most prominent theme of the unit being the concept of divine providence and faith in God. The author provided Rachel with a unit guide (Appendix J) that helped to structure her thinking about how to provide her students autonomy during this unit. Using the biblical story of Joseph as the context to teach these big ideas, Rachel reflected on the two themes within the chapter:

> So, I had a couple of overarching ideas: the idea of how Hashem [God] runs the world, of *hashgacha pratit* [divine providence], and the idea of *yeshuat Hashem k'heref ayin* [God's salvation comes in the blink of an eye], which is what they basically picked up on very well (personal communication, February 9, 2019).

Rachel was at once excited and self-doubting about trying out a different approach to instruction. As such, she found much relief in the fact that she herself had autonomy to decide how to implement an AS/SC approach, because, as she shared in her interview, "I

was able to take this on in a way that felt most comfortable and didn't completely overwhelm me or push me totally out of my comfort zone" (personal communication, February 9, 2019). Rachel's reflections about being given her own autonomy in the implementation process align with Calvert's (2016) argument that teacher agency is an essential and transformative component of professional learning and of adopting pedagogic change.

Allowing both Rachel and Malka to consider how they wanted to interpret and actualize the implementation of an AS/SC unit, rather than asking them to simply comply with a set of directives, arguably lessened any resistance that they may have had about adopting a new approach to instruction (Spillane, Reiser, & Reimer, 2002). To that end, Rachel formatted her unit differently than Malka; whereas Malka taught the skill and content knowledge parallel to the Makerspace design challenge, Rachel felt more comfortable splitting up her instructional time so that she spent the first three weeks of the unit teaching the skills and content and the latter three weeks providing students the opportunity to actively interact with the skills and content to which they had been exposed.

Full implementation of unit. Full implementation of an AS/SC unit of Bible instruction was measured through author field notes and twice-weekly classroom observations utilizing the Learner-Centered Rubric for Classroom Observation (Center for Excellence in Teaching and Learning, 2013). During observation, observers identified the 19 descriptors that were most notably true about the Bible lesson. The rubric was scored by adding the number of descriptors chosen from each column of descriptors (learner-centered, transitional, teacher-centered). The sum of each column was multiplied

by 2 for the learner-centered column, by 1 for the transitional column, and by 0 for the teacher-centered column. The three products were then added up to a total score, where a total of 0-13 scored as a teacher-centered classroom, 14-25 as a transitional classroom, and 26-38 as a learner-centered classroom. Each observation's total score was recorded. At the end of the intervention, all observation scores were averaged to arrive at a cumulative score of the presence of an AS/SC approach to instruction.

Based on the scoring of these rubrics, Rachel's implementation of an AS/SC approach to instruction ranged from the mid-range of a transitional approach, at 19 points, to the mid-range of a learner-centered approach, at 31 points, with a mean score of 26 points. This indicates that within the six weeks of Rachel's unit, she was able to implement an instructional approach wherein (a) she served as the facilitator of learning, (b) students had some control over the learning process, (c) the content of the unit was used as a way for students to develop skills and strengthen their critical thinking skills, (d) students took responsibility for their role in the learning process, and (e) assessments included self-reflection and peer-assessment (Center for Excellence in Teaching and Learning, 2013).

Introducing the unit. Rachel introduced and framed her unit differently than she typically had done, by sharing with her students that they have the opportunity to create an exhibit to teach other students and school members about this chapter. During the first lesson, Rachel brought out a giant post-it note affixed to the whiteboard. In the end of unit interview, she reflected on the ways in which changing how she introduced the unit had a ripple effect on how her students attended to the details of what they were learning.

> So, I told them that we're going to have a new element to our learning, and that we're going to keep in mind that at the end of the unit, we're going to be creating something to show what we learned. And I gave them some examples and we did this chart, where I wrote at the top 'What is it that we want to show about what we have learned?', and as the unit went on, we were adding pieces to this list. One of the benefits of doing it this way was that the kids' ears were tuned in to looking for those pieces; whether it helped them with the skills or those little pieces, I don't know. But the bigger pieces, they were surely more in tune with (personal communication, February 9, 2019).

Direct instruction. While the students were exposed to the skills and content knowledge of the unit, they volunteered different ideas or elements of their learning that they envisioned using for their exhibits. As such, despite the fact that Rachel's approach to this unit was sequential in nature, with more direct instruction first and a project approach afterwards, students were continuously reminded through the visual list on the board and their constant addition of new ideas, that their learning was purposeful and connected to a larger goal, and that their teacher was listening to their input in thinking about how the unit would progress (Reeve, 2016).

Exhibit development. Once Rachel finished the verses that comprised the unit, she refocused her students on the list of topics and ideas within the chapter that they were thinking about using for their exhibition. Rachel explained to her students that their job was to create an exhibit to teach others about what they had learned. Students reviewed the list of big ideas that they had compiled over the course of the first weeks of the unit, and then individually completed proposal forms, specifying what particular topic they

wanted to work on, what ideas they had about what type of exhibit they wanted to create, and whether they preferred to work independently or in a group. To continue building a connection between the exhibit creation and what they had learned, Rachel told her students that each exhibit must include textual references from the chapter that they learned. Any big idea or event that they were depicting through their exhibit had to be supported by textual evidence and displayed on their final product. It was during the development of the exhibit that Rachel saw that her students were markedly more engaged in what they were doing:

> They loved it, and they were so excited. You should have seen them. They kept on saying, 'I've been waiting for this!'. I just loved how they were reading, and watching and listening, and thinking. I liked that they were thinking. And the whole point of learning *Chumash* [Bible] is lessons and what you take away from it (personal communication, February 9, 2019).

After reviewing and approving student proposals, Rachel grouped students together who were interested in the same topics and who wanted to work collaboratively. Over four class sessions, students built "scenes" from the unit that exemplified the major ideas they wanted to share. Mostly all students chose the concept of *yeshuat Hashem k'heref ayin* [God's salvation can come in the blink of an eye]. Most student displays depicted the story of Joseph's fast-paced rise to power in Egypt following being imprisoned by the Pharaoh that he then was brought in to advise. To convey the idea of God's salvation, one group created the image of Joseph in prison side-by-side with Joseph as a ruler in Egypt. In front of one of the scenes was a black screen that blocked the scene. The students connected an outdated video-game controller to the black screen,

and depending on which direction the controller was pulled, it moved the black screen to then cover one scene and reveal the other scene that had been hiding. Another group built their scenes upon a Lazy Susan, whose perimeter was lined with the textual verses that connected to Joseph's transformation from prisoner to ruler in Egypt.

Exhibit display. Students invited parents, administrators, and other classes to visit their exhibition in which they displayed all their creations. When visitors came, students served as docents, narrating their scenes. As a class, the students compiled an "exit ticket" for all their visitors, to assess whether they had been successful in communicating the ideas that they wanted to teach others about what they had learned.

Assessment. For the purposes of the current study and in keeping with the two other fourth-grade Judaics teachers, Rachel utilized the same summative assessment that the other fourth-classrooms were using. Eighty-percent of the assessment focused on students' skill development and asked students to translate vocabulary through matching and fill-in-the-blanks, to translate biblical phrases and to identify the context of the specific biblical phrases, and to identify and translate the root words found in the unit. The remaining twenty-percent of the assessment was comprised of content knowledge questions, where students had to answer questions about the storyline, big ideas, and content of the biblical chapter.

End of Unit Interviews and Author Field Notes

This section will offer an analysis of participating teachers' end of unit interviews and will provide insight to the process of implementation based on the author's reflections and field notes. After the author transcribed both teacher interviews, she reviewed the transcripts and divided each interview in entirety into topical statements. A

topical statement is defined as a complete and coherent thought made by the teacher. Using emergent coding (Saldaña, 2009), the author identified the various overarching categories within which all topical statements were situated. By dividing the entirety of the interviews into topical statements and categorizing the topical statements into overarching themes, the author was able to account for the entirety of the interview content. The author reviewed the interviews multiple times to further identify any notable codes and themes which helped with data interpretation. The most prominent themes will be discussed in this section. The codebooks for the interviews can be found in Appendix I.

Topical Categories. Both interviews were divided into topical statements, with Malka's interview dividing into 55 topical statements and Rachel's interview diving into 21 topical statements. In analyzing these statements, the following themes emerged: (a) description of classroom activities, with sub-categories of description of intervention unit activities and description of typical unit activities; (b) affective reflections of the teacher; (c) teacher reflections about student affect; (d) teacher evaluation of intervention unit implementation, with sub-categories of benefits, neutral statements, and statements about challenges; (e) teacher evaluation of student achievement and understanding; (f) considering future implementation; and (g) teacher reflections on change and adopting new practices.

There were several topics that were far more prominent in the interviews than other topics, with the majority of Malka's statements centering on evaluation of unit implementation, affective reflections, considering future implementation, and teacher change, and the majority of Rachel's statements addressing evaluation of unit

implementation, teacher reflections on student affect, considering future implementation, and teacher change. The most notable conclusions drawn from the interviews are discussed below.

Teacher reflections: Benefits. The biggest identified benefits of the unit, based on analysis of both teacher interviews, were the added dimension of meaningful learning as a result of underpinning the unit with an essential question for the students to explore and the hands-on nature of the unit. Both Malka and Rachel noted the difference of making the unit feel relatable and relevant to the students from the outset. Malka's reflection highlighted that creating an overarching question to explore enhanced both her experience teaching the unit and the students' learning experience:

> What I really like is that we left the unit with the theme. I loved that. So, I'm like, if I can do that for every unit so that I know no matter what the skills, no matter what concepts they know, I know they're going to get that theme. Every single kid got the theme of *chesed* [kindness] and what it is and was thinking about it.

Similarly, Rachel continuously mentioned how excited her students were to be given a tangible goal, other than an end-of-unit assessment. The benefit perceived by the teacher mirrors the deeper conceptual understanding and positive attitude towards learning that Barron and Darling-Hammond (2008) suggest as fundamental advantages of an AS/SC approach to learning.

Teacher reflections: Barriers and challenges. Adopting an AS/SC approach within a Judaic Studies elementary classroom poses the challenge of adapting teacher beliefs around pedagogy, especially given the added dimension of the arguably sacred responsibility to transmit Jewish knowledge that Judaic Studies teachers feel (Hassenfeld,

2018; Holtz, 2003; Krakowski, 2011; Pomson, 2011). The most pervasively identified barriers to implementation were those related to the complexity of changing instructional practices and the pressure to use instructional time to transmit the skills and knowledge Judaic Studies teachers feel obligated to give to their students.

Time constraints. Within the context of KDS, where Judaic Studies comprises the latter 40% of the school day, the pressure to transmit Jewish knowledge and literacy translates into a constant feeling of being constrained for time. Both teachers emphasized the constant rush they feel to cover the curriculum. In thinking about whether she would utilize this approach in future units, Rachel was forthright about the pressure she feels:

> I have ground to cover and things I want to tell them and things I want them to think about… I have a way of getting bogged down because the kids want to talk, but I want to move them along. I would need to rethink how to fit everything in. Oh my gosh, I have no time, no time. It's crazy (personal communication, February 9, 2019).

Malka expressed feeling stressed for time more in relation to wanting to cover the same quantity of content at the same pace as the other third-grade Judaics teachers. For Malka, using a different instructional approach made her feel isolated from her colleagues, because "I really like to keep up, and it's just like, we like to work together, it's a lot more fun" (personal communication, February 5, 2019). When asked whether she could envision implementing an AS/SC approach in future units, Malka expressed significant interest but only if all teachers worked collaboratively and there was buy-in from school leadership and teaching faculty. Malka's resistance to consider change without the support and collaboration of her colleagues aligns with literature that

highlights the correlation between school and collegial support and teacher motivation and success in implementing new instructional practices (Lam et al., 2010; Price, 2015).

Changing instructional practices. When Malka described what was most challenging for her about implementing the unit, she specified the shift from whole-group frontal instruction to a small group instruction format, where students were working on different tasks in smaller groups. This shift in instructional format felt unpredictable to Malka, who was accustomed to a specific whole-group format where she was sure to review skills in a specific way:

> I'm very usually I'm really good about that. I'm really into that. I really try to find time to really make sure that I have the skills really reviewed and they know it really well…No matter what I have planned that day, I always start off with 'Let's review the skills, let's review the vocab, let's review the *shorashim* [root words]'. It takes me three-to-five minutes if not less, but I feel like I have to do that, and I feel good about it… In the end, I mean obviously they did really well so clearly, we reviewed the skills enough. I just felt like I didn't have as good a grasp on where everyone was holding (personal communication, February 5, 2019).

Malka's reflections offer an insight into the discomfort of changing pedagogic approaches, especially when this change involves relinquishing a sense of control to the students, and when it jeopardizes the teacher's feeling that she has given over certain skills or knowledge to her students (Hassenfeld, 2017; Lee & Hannafin, 2016). Furthermore, the unfamiliarity of an AS/SC approach to teaching Bible left Malka unsure of how to assess her students' skill development. These challenges align with the challenges of adopting an AS/SC approach, as an AS/SC approach to teaching

redistributes the control within the learning environment from being singularly for the teacher to being shared between teacher and students (Center of Excellence of Teaching and Learning, 2013; Lotter & Miller, 2017). It also requires teachers to reconsider the use and approach to assessment, which Malka recognized as a challenge as she implemented the unit. Malka shared that prior units were "more about checking things off the list…and then I would feel good about it" (personal communication, February 5, 2019). By following a specific and formulaic approach where Malka knew exactly what she had to teach and how she was going to teach it, Malka felt comfortable utilizing the end-of-unit test as an indicator of the students' skill development. With this new approach to instruction, however, Malka deviated from this specific formula and as such, was left confused as to how to gauge whether she had adequately taught what she aimed to teach.

In reflecting on the idea of changing instructional practices, both teachers drew upon their experience of integrating technology into their classrooms. Rachel, a teacher of 47 years, likened the idea of adopting an AS/SC approach to the pressure and discomfort she feels about incorporating technology into her teaching:

> I mean, this whole technology piece is very difficult for me. You know, both with this unit and with technology, the kids love it and it really got them excited. So, if there is a way to incorporate that, I would like to, but I am hesitant to commit to it. I would have to kind of revamp things and how to rethink how to fit everything in (personal communication, February 9, 2019).

In contrast, Malka drew a parallel between the benefits of technology integration and the potential benefits of adopting an AS/SC approach.

> We've made tons of change. Even this year we do so much more on the iPad. If you would have told me that three years ago, I would have said, 'When? We're done. We're full. We're full. We spend all our time teaching'. But it enhances it. It goes hand in hand. It's not a separate new thing. I would have told you we don't have time in our schedule, but we do, and it's like, how do we have time? I don't know. But we do. Other things we do less of, but it's okay, it all evens out (personal communication February 5, 2019).

The differences in these two perspectives may be a reflection of the different internal traits of each of the teachers (Calvert, 2016), and more pointedly, the ways in which individual teachers make sense of adopting new reforms (Spillane et al., 2002). Spillane et al. (2002) argue for the necessity of policymakers and administrators to consider "the complexity of human sensemaking" (p.391) and to understand that "what may be new ideas…are interpreted on the basis of agents' current frame of reference…different agents will construct different understandings, seeing what is new in terms of what is already known and believed" (p.395).

Author Reflections. The author was a participant/observer throughout the process of implementation. It is essential to note that the author had built personal and professional relationships with the participating teachers over seven years of working together. This foundational relationship and sense of trust between the author and the participating teachers was arguably the factor that facilitated the teachers' successful implementation of an AS/SC approach to a unit of their Bible curriculum. Rachel's request for "handholding" (personal communication, December 31, 2018) from the author throughout the process indicates that she felt comfortable enough with the author

to admit a vulnerable stance and to ask for help in learning an approach that was unfamiliar to her.

The author was intentional about providing as much support as both Malka and Rachel expressed they wanted. She also regularly reinforced that the teachers were in no way being professionally evaluated based on this process of implementation. This allowed the teachers to try out new approaches and instructional methods, supported by the author, without the sense that they would be told they were doing something wrong. The idea that the success of implementation is largely founded upon the author's relationship with the participating teachers and the level of trust between author and teachers aligns with Tschannen-Moran's (2014) research that trust is fundamental for teacher change and for positive school climate.

Findings

In addition to conducting a process evaluation, the author explored the following questions in guiding an outcome evaluation of the current study:

- RQ1: Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' engagement in learning in comparison to students who learned the same content through a traditional, teacher-centered approach?
- RQ2: Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' skill development in that academic domain, in comparison to students who learned the same content through a traditional, teacher-centered approach?

- RQ3: Does an AS/SC approach to teaching the Hebrew Bible, over the course of six weeks, increase elementary school students' content knowledge in that academic domain, in comparison to students who learned the same content through a traditional, teacher-centered approach?

The following section presents the findings of the current study's outcome evaluation.

Research question 1: Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' engagement in learning in comparison to students who learned the same content through a traditional, teacher-centered approach?

Pre-test. The purpose of the pre-test was to collect baseline data on third and fourth-grade students' self-reported levels of engagement in their Bible class. An additional purpose was to compare baseline levels of engagement between students in the control and treatment groups. Students in control and treatment groups in third and fourth-grade completed the Engagement vs. Disaffection in Learning, Student Report (Skinner et al., 2008a), and also completed information about their gender and religious observance. Seventy students within third and fourth-grade completed the pre-test survey.

Comparing control and treatment groups on pre-test levels of engagement. Results reflect that there was no statistically significant difference in levels of engagement between third-grade control and treatment groups. This was true across all four subconstructs of engagement (behavioral engagement, emotional engagement, behavioral disaffection, emotional disaffection) and was true when analyzed as a composite score, $t(28) = -.635$, $p.=.531$. Within the fourth-grade student sample, there was no statistically significant difference in reported levels of behavioral engagement and

emotional disaffection. Findings did reflect that the treatment group in fourth-grade reported less emotional disaffection than the control group, t(34)=2.726, *p*=.01, and more emotional engagement than the control group, t(35)=2.824, *p*.=.008.

Religious observance and levels of engagement. Descriptive statistics reflect that within the third-grade sample (N:34), 23 students are not Orthodox and 11 students are Orthodox. In the third-grade treatment group, there were 4 Orthodox students and 5 non-Orthodox students. In the third-grade control group, there were 7 Orthodox students and 18 non-Orthodox students. Within the fourth-grade student sample (N: 36), 14 students were Orthodox and 22 students were non-Orthodox. The fourth-grade treatment group had 5 Orthodox students and 6 non-Orthodox students, and the fourth-grade control group had 9 Orthodox students and 16 non-Orthodox students. Based on an independent samples t-test, findings reflect that Orthodox students report higher levels of engagement and lower levels of disaffection as compared to non-Orthodox students in the same class.

Post-test. The purpose of the post-test was to evaluate the levels of engagement among third and fourth-grade students after the implementation of an AS/SC unit of Bible. Students in control and treatment groups in third and fourth-grade completed the Engagement vs. Disaffection in Learning, Student Report (Skinner et al., 2008a). Sixty-one students within third and fourth-grade completed the post-test survey.

Comparing control and treatment groups at post-test levels of engagement. Post-test data reflects that the treatment groups in third and fourth-grade experienced higher levels of behavioral engagement, t(62)=-2.27, *p*=.027, and trended towards significantly higher levels of emotional engagement, t(62)=-1.907, *p*=.061 in comparison to the control group. In addition, although emotional engagement trended downward for

both treatment and control groups at the post-test, behavioral engagement trended upward for the treatment group at post-test. Treatment groups in both third and fourth-grade remained more behaviorally and emotionally engaged than the control groups (see table 13 and table 14). There was no statistically significant difference between control and treatment groups in the pre-intervention and post-intervention data in regard to their levels of behavioral disaffection and emotional disaffection.

Table 13
Comparison of Behavioral Engagement Levels: Third-Grade Treatment vs. Third-Grade Control, Post-Test

	Control	Mean	Std. Deviation	N
Behavioral Engagement, Pre-test	1.00	3.5091	.40337	44
	2.00	3.5647	.33343	17
	Total	3.5246	.38326	61
Behavioral Engagement, Post-test	1.00	3.3136	.67016	44
	2.00	3.6353	.27600	17
	Total	3.4033	.60276	61

Table 14
Comparison of Emotional Engagement Levels: Fourth-Grade Treatment vs. Fourth-Grade Control, Post-Test

	Control	Mean	Std. Deviation	N
Emotional Engagement, Pre-test	1.00	3.1209	.67066	43
	2.00	3.5778	.29014	18
	Total	3.2557	.61874	61
Emotional Engagement, Post-test	1.00	2.9674	.84282	43
	2.00	3.3111	.62581	18
	Total	3.0689	.79573	61

Religious observance and levels of engagement. Data analysis comparing children's religious observance with children's levels of engagement indicates that Orthodox students continued to report higher levels of emotional engagement than non-Orthodox students in the same class, $t(61) = -2.104$, $p = .04$.

Comparisons of pre-test and post-test. In comparing levels of engagement post-intervention, a repeated measures ANOVA was used to look at within-subjects changes over time. Findings from this test indicated that there was no significant difference in the change of any of the four dimensions of engagement and disaffection over time. Dimensions of engagement include behavioral engagement, F(1,59)=1.973, *p*=.165, emotional engagement, F(1,59)=.271, p=.605, behavioral disaffection, F(1,57)=.012, *p*=.914, and emotional disaffection, F(1,51)=.171, *p*=.681. However, in reviewing the findings above from pre- and post-test data, there were statistically significant differences in levels of engagement between-subjects at each time period. While both treatment and control groups trended downward in their self-reported levels of emotional engagement (as shown in figure 11), the treatment groups reported significantly higher levels of emotional engagement at both pre- and post-test and higher behavioral engagement and lower emotional disaffection at the post-test in comparison to the control group.

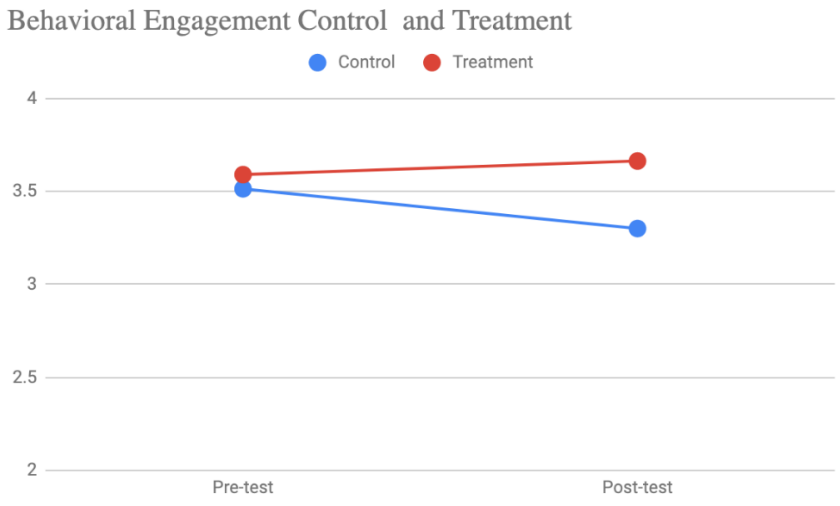


Figure 10. Behavioral Engagement, Control and Treatment, Pre-test and Post-test

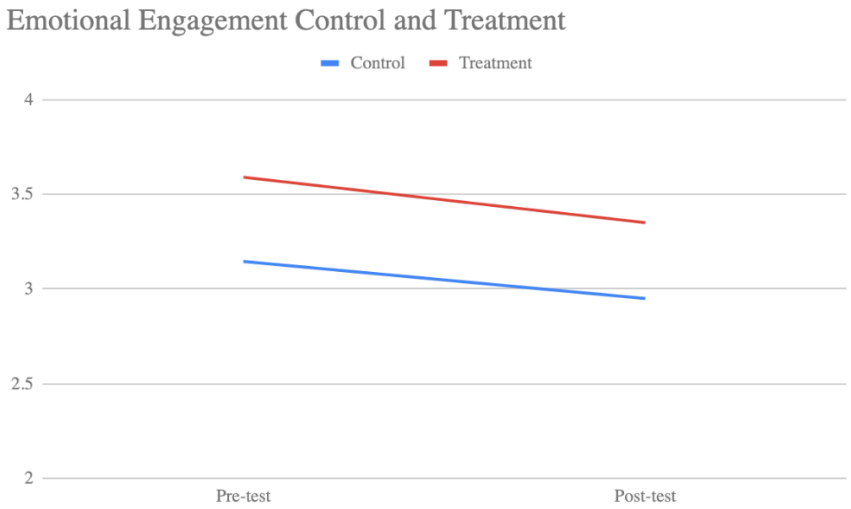


Figure 11. Emotional Engagement, Control and Treatment, Pre-test and Post-test

Comparison between grade levels. To examine differences between grade levels, a repeated measures ANOVA was conducted that controlled for both treatment versus control and grade level. Results of this analysis suggested that there was significant interaction between grade and control on behavioral disaffection, $F(1,55)=8.104$, $p=.006$ and emotional disaffection, $F(1,49)=5.299$, $p=.026$. In order to better understand this interaction, further independent samples t-test were run to examine differences between third and fourth-grade. Within the third-grade data set, there was no statistically significant difference between the pre-test and post-test data. Results from the fourth-grade data set indicate no change over time for both treatment and control. However, when examining only post-test data, the fourth-grade treatment group reported more behavioral engagement, $t(32)=-1.909$, $p=.065$ emotional engagement, $t(32)=-2.844$, $p=.008$ and less behavioral disaffection, $t(32)=-2.209$, $p=.034$, in comparison to the control group. This suggests that the intervention may have influenced fourth-grade students' levels of engagement more than third-grade students' levels of engagement.

Research question 2: Does an AS/SC approach to teaching the Hebrew Bible, over the course of four to six weeks, increase elementary school students' skill development in that academic domain, in comparison to students who learned the same content through a traditional, teacher-centered approach?

Research question 3: Does an AS/SC approach to teaching the Hebrew Bible, over the course of six weeks, increase elementary school students' content knowledge in that academic domain, in comparison to students who learned the same content through a traditional, teacher-centered approach?

At the culmination of implementation, students in control and treatment groups completed the same assessment of their skill development and content knowledge. Assessments were grade-level specific and assessed the specific skills and content knowledge that teachers had defined as the benchmarks for achievement in each unit. In both third-grade and fourth-grade, 80% of the assessment focused on students' skill development and asked students to translate vocabulary through matching and fill-in-the-blanks, to translate biblical phrases and to identify the context of the specific biblical phrases, and to identify and translate the root words found in the unit. The remaining 20% of the assessment was comprised of content knowledge questions, where students had to answer questions about the storyline, big ideas, and content of the biblical chapter. Independent samples t-tests indicated that students in the control group and treatment group achieved equivalent levels of skill development and content knowledge (see tables 15, 16, 17, 18).

Table 15
Group Statistics, Third-Grade Skill Development and Content Knowledge, Control vs. Treatment

	Control	N	Mean	Std. Deviation	Std. Error Mean
Skill	1.00	24	93.75	9.042	1.846
	2.00	13	93.69	10.355	2.872
Content	1.00	24	92.33	10.273	2.097
	2.00	13	94.54	9.315	2.584

Table 16
Independent Samples T-Test, Third-Grade Skill Development and Content Knowledge, Control vs. Treatment

	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	Upper	
Skill	Equal variances assumed	.518	.476	.018	35	.986	.058	3.276	-6.593	6.708
	Equal variances not assumed			.017	22.001	.987	.058	3.414	-7.022	7.138
Content	Equal variances assumed	.781	.383	-.643	35	.524	-2.205	3.428	-9.165	4.754
	Equal variances not assumed			-.663	26.923	.513	-2.205	3.327	-9.033	4.623

Table 17
Group Statistics, Fourth-Grade Skill Development and Content Knowledge, Control vs. Treatment

	Control	N	Mean	Std. Deviation	Std. Error Mean
Skill	1.00	27	89.6667	9.20284	1.77109
	2.00	11	86.9091	12.16104	3.66669
Content	1.00	28	91.1786	12.91583	2.44086
	2.00	311	94.0909	10.44466	3.14918

Table 18
Independent Samples T-Test, Fourth-Grade Skill Development and Content Knowledge, Control vs. Treatment

								95% Confidence Interval of the Difference		
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper	
Skill	Equal variances assumed	.442	.510	.762	36	.451	2.75758	3.61693	-4.57789	10.09305
	Equal variances not assumed			.677	14.899	.509	2.75758	4.07202	-5.92689	11.44204
Content	Equal variances assumed	.808	.375	-.666	37	.510	-2.91234	4.37579	-11.77854	5.95386
	Equal variances not assumed			-.731	22.603	.472	-2.91234	3.98437	-11.16265	5.33797

Discussion

This study examined the influence of an AS/SC approach to teaching a unit of Bible to third and fourth-grade students. Findings indicate that there were significant differences between-subjects in control and treatment groups at each period of time, with the treatment groups in both third and fourth-grade reporting higher levels of engagement than the control groups. There was no statistically significant difference in the levels of engagement within-subjects over time. Treatment groups reported significantly higher levels of emotional engagement at both pre- and post-test and higher behavioral engagement and lower emotional disaffection at the post-test in comparison to the control group. This suggests that although students' levels of engagement trended downward, on some dimensions of engagement, during the four-week and six-week interventions, an AS/SC approach may have sustained higher levels of behavioral and emotional engagement in the treatment group than what may have been if students had learned

through a traditional, teacher-centered approach. Findings comparing students' levels of skill development and content knowledge revealed that students in control and treatment groups did not differ in their levels of skill development and content knowledge as assessed at the end of the unit. This section will discuss the study's findings in greater detail.

Significant Differences in Engagement between Treatment and Control Groups

Findings suggest that students who learned a unit of Bible through an AS/SC approach were significantly more engaged in their learning than students who learned the same unit of Bible, at the same period of time, through a teacher-centered, traditional approach. These results reinforce previous research that suggests that students will be more engaged in their learning when they perceive themselves as autonomous and when they have agency within the learning process (Barron & Darling-Hammond, 2008; Skinner et al., 2009a; Taboada Barber et al., 2017; Whitlock & Brugar, 2017). It also extends the argument, within the discourse on religious education, that religious education should be experiential, interactive, and built upon children's curiosities, questions, and interests (Afdal, 2015; Hyde, 2008, 2010; Schein, 2013; Shire, 2011; Woocher, 2012).

Considering teacher factors. In addition to argument that the implementation of an AS/SC approach accounts for the higher levels of engagement in treatment groups, it is possible that certain teacher factors contributed to these significant differences in engagement between treatment and control. As indicated in an earlier section of this chapter, the sustained coaching and support that the author provided participating teachers offered teachers the opportunity to experiment with unfamiliar approaches to

instruction in a way that was non-evaluative and comfortable. The level of trust and prior relationship between author and participating teachers functioned as a springboard for teachers to step outside of their comfort zone in ways that they would have otherwise not done. Drawing upon the end of unit teacher interviews, which suggest that teachers still upheld the overarching belief that teaching Bible is predominantly an act of transmission of knowledge, it is not clear if participating teachers experienced a fundamental shift in their motivating style or attitude. However, as Guskey (2002) suggests, it is possible that through continual changes in practice and increased exposure and opportunity to try out an AS/SC approach, teachers may identify the benefits to the point that their attitudes may eventually shift.

It is noteworthy that treatment groups were significantly more engaged than control groups despite teachers' lack of mastery of an AS/SC approach. Although teachers received training over the summer and were supported and coached by the author leading up to and during the implementation, the adoption of this approach for this particular unit was relatively new and unfamiliar. As such, teachers were themselves novices at strategies, routines, and pedagogic paradigm shifts necessary to adopt when attempting to be more autonomy-supportive and student-centered. While between-subject findings indicate that the implementation of an AS/SC approach may have influenced students' levels of engagement when compared to learning through a traditional, teacher-centered approach, participating teachers' relative inexperience with structuring a classroom to provide students agency in their learning may have impacted their ability to implement this approach as fully as possible. This is supported by the findings that participating teachers' implementation, based on classroom observations over the course

of the intervention, ranged from a moderate transitional approach to a moderate learner-centered approach (Center for Excellence in Teaching and Learning, 2013). However, it does suggest that if provided the adequate school support and resources over a sustained period of time, teachers could adopt a more coherent AS/SC approach to instruction and could therefore impact student engagement at even greater levels than the current study identified.

Lack of Within-Subject Change in Engagement

Analysis of self-reported levels of engagement prior to and following the intervention indicate that there was no statistically significant difference in students' levels of engagement over time. One possible explanation for the lack of a change in student engagement from pre-test to post-test is that both treatment groups reported higher baseline levels of emotional engagement at pre-test. This higher baseline for engagement within treatment groups could have impacted the likelihood of finding statistical significance, being that the treatment groups were already reporting higher levels of emotional engagement than the control groups. Another possibility may be that the four-week and six-week interventions were too short of an intervention period to truly affect a change in student self-reports of engagement. An additional factor to consider in an attempt to understand the lack of a significant change within-subjects is the downward trend in emotional engagement, from pre-test to post-test, that was identified in both treatment and control groups.

Considering the Opposing Trends Between Emotional and Behavioral Engagement

Emotional engagement. It is noteworthy that post-test data reflected that treatment students trended downward in their levels of emotional engagement in

comparison to the pre-test data, but trended upwards in their levels of behavioral engagement in comparison to the pre-test data. Emotional engagement refers to the reported enthusiasm, value, and positive attitude students have towards school, teachers, classmates, and academic tasks, along with their feelings of belonging within the school environment (Fredricks et al., 2004; Furrer et al., 2014; Lawson & Lawson, 2013; Skinner et al., 2009a). In reporting on their levels of emotional engagement on the Engagement vs. Disaffection in Learning, Student Report (Skinner et al., 2008a), students rated the accuracy of statements such as "When I'm in class, I feel good" or "I enjoy learning new things in class". This downward trend may be reflective of a potential decline in emotional engagement levels over the course of a school year. While most research on student engagement explores the changes in patterns of engagement across school years (Marks, 2000; Ryan & Patrick, 2001; Wang & Fredricks, 2014), Opdenakker, Maulana, and Brok (2011) contend that studies on within-year changes in engagement and motivation are limited. In their study on the within-year changes in engagement, Opdenakker et al. (2011) found that students' autonomous motivation decreased over time. This finding aligns with the findings in the current study, as suggested by the downward trend in emotional engagement, which may reflect a weakening of enthusiasm for learning as the year progresses. A relevant area of future research may be to investigate whether levels of student engagement correlate with various time periods within one school year. It is noteworthy that despite the downward trend in engagement, the treatment groups were able to sustain significantly higher levels of emotional and behavioral engagement compared to the control group at post-test. While there may be a natural decline in engagement over the course of a school year,

findings suggest that an AS/SC approach to instruction may have lessened the potential degree to which levels of engagement trended downward.

Despite an absence of statistically significant changes in emotional engagement from pre-test to post-test, qualitative data suggests that the participating teachers perceived their students to be notably more engaged and excited to learn during the AS/SC unit than in prior units. Being that students' levels of engagement influence the degree to which teachers are engaged and invested in their teaching (Scott et al., 2014; Skinner & Belmont, 1993), this finding suggests that even without statistically significant data, teachers' perceptions that students are more excited and engaged in learning can make the experience of teaching more enjoyable.

Behavioral Engagement. Post-test data reflects an upward trend in treatment students' levels of behavioral engagement. Behavioral engagement refers to the observable behaviors that indicate a student's active interest and involvement in learning. These behaviors include attendance, initiation of tasks, participation in classroom lessons and activities, on-task behaviors, adherence to classroom rules, persistence towards a task, and observed effort (Furlong & Christenson, 2008; Fredricks et al., 2004; Skinner et al., 2009a). In reporting their levels of behavioral engagement on the Engagement vs. Disaffection in Learning, Student Report (Skinner et al., 2008a), students rated the accuracy of statements such as "In class, I participate in class discussions" or "I work as hard as I can in class". The upward trend in students' reported levels of behavioral engagement may reflect that the students in treatment classes perceived that they were more actively involved in the classroom learning and activities than they had been in prior units of instruction. While their increased level of activity and involvement in their

learning was indicated through their reports of their behavioral engagement, it is possible that the students were not readily reflecting on their feelings in relation to this changed approach. This discrepancy between behavioral engagement and emotional engagement in post-test data is all the more noteworthy given the observations in end of unit interviews from both participating teachers that students were significantly more excited and enthusiastic about this unit than any unit prior.

Grade-level Trends

While there were no statistically significant differences in pre-test or post-test data for third-graders, the fourth-grade treatment group reported higher levels of emotional engagement and behavioral engagement, and lower levels of behavioral disaffection in comparison to the control group at post-test. The statistically significant increase of behavioral engagement and decrease of behavioral disaffection at the post-test are important to consider, in that an AS/SC approach to instruction may have helped to mitigate the possibility of decreased behavioral engagement and increased likelihood of disaffection fourth-graders that is more likely to be reported in fourth-grade than in third-grade. With literature on student engagement indicating a general decline in levels of engagement as students progress through each grade level, research suggests that the steepest decline happens around the middle school years (Blackwell et al., 2007; Cain & Dweck, 1995; Hirschfield & Gasper, 2011; Wang & Fredricks, 2014). Further investigation is warranted to identify if an AS/SC approach was more impactful in fourth-grade than in third-grade because of the greater likelihood for fourth-graders to naturally demonstrate disaffection and decreased engagement.

Skill Development and Content Knowledge

Qualitative data suggests that participating teachers were most concerned with their ability to utilize an AS/SC approach while also providing students adequate review of skills and content. The findings that students among control and treatment groups achieved equivalent levels of skill development and content knowledge reflects that the implementation of an AS/SC unit did not compromise students' abilities to develop skills and gain an understanding of the unit's content. This can inform educational practice by alleviating teachers' arguable misperceptions about time constraints and the necessity of transmission above all else. Rather, this study suggests that Judaic Studies teachers may be able to utilize an AS/SC to teaching without the concern that they will lose out on the curriculum they feel the need to cover. This insight aligns with Hassenfeld's (2017) argument that a pedagogy of interpretive facilitation, wherein students can interact with and authentically discuss the content they are learning rather than unidirectionally receive the teacher's idea, in fact allows teachers to accomplish what Holtz (2003) refers to as "the enterprise of cultural transmission" (p.37) while students are able to learn through a transformative educational experience.

Students' Levels of Religious Observance

Both pre-test and post-test data indicate that Orthodox students reported higher levels of engagement in their learning than non-Orthodox students. This finding calls into question whether a community Jewish day school, such as KDS, is able to provide an equitable Jewish education for all of its students. If the mission of a community day school is to offer a deeply engaging and enriching Jewish education to students,

regardless of level of observance, a future area of research may be the degree to which students of varied levels of Jewish observance experience Judaic education differently.

Teachers' Years of Experience and Educational Backgrounds

Findings suggest that teachers' years of experience and educational backgrounds did not impact the influence of an AS/SC approach to Bible instruction. This speaks to the potential significance of professional learning in providing all teachers with the training and support necessary to change instructional practices and increase the level at which students are engaged in their learning. A consideration for educational practice is the value of providing school-wide training and system-wide adoption of an AS/SC instructional approach. Participating teachers struggled with both adopting a new instructional practice without collegial collaboration and with the ways in which the school's schedule and expectations for what content is meant to be covered did not align with the AS/SC approach to instruction. It is possible that were this approach to be adopted on a school wide level, with appropriate and ongoing training, coaching, and support for staff, the influence of an AS/SC would be significantly more meaningful. By adopting a systemic approach, there could be congruence between the resources of time, staffing, and scheduling with the need to provide ongoing professional learning and to create a schedule in which teachers and students have flexible periods of time to pursue learning goals rather than to feel rushed to keep up a pace of learning that limits the level of depth of understanding students can achieve (Darling-Hammond et al., 2017; Jensen et al., 2016).

Limitations

There are several noteworthy limitations of this study. The pre-test and post-test, although providing added data upon which to estimate causal inferences, pose a testing threat to validity, as exposure to a survey may impact future performance on the same survey (Shadish et al., 2002). By conducting the study within one school context rather than adding additional sites, there is a lack of sampling validity and thus an inability to establish external validity. The use of a grade-level unit assessment, created by each grade-level teaching time and evaluated by Judaic Studies teachers, still poses a certain level of threats of validity and reliability. It is also possible that while control teachers did not implement an AS/SC approach in their classrooms, exposure to this approach through prior professional learning workshops and through watching their colleagues plan and implement the intervention may have increased their use of AS/SC strategies and may have contaminated the validity of the intervention. There may also be an effect of novelty to consider, in that students were engaged in the learning because it was new, rather than because it was inherently engaging. In addition, the small sample size of 2 participating teachers limited the ability to establish external validity.

Implications for Research

There are many directions to consider in advancing this body of research. Expanding this research to multiple sites and large sample sizes of both students and teachers would increase sampling validity and ability to generalize findings. This would include extending the research to students of various ages to identify whether there is a differential sensitivity to the influence of an AS/SC approach to instruction based on age, environment, learning needs, or religious educational context. In addition, future research

may consider whether this study's findings are applicable in various academic domains, and whether findings vary depending on whether the domain is largely skill-based or centered more on content. While this study assumed a text-expansive approach in designing an AS/SC unit of study, where teachers and students extended the lessons or themes of the text to engage in a bigger project, a future study may want to consider how an AS/SC could be designed that was text-intensive, where teachers supported student autonomy in understanding and interpreting the Biblical text. It would also be interesting to consider whether a more extensive professional learning and coaching model for participating teachers would influence the results of the research.

Implications for Practice

This study offers insight and implications for practice that educators can build upon, along with further questions for educators to consider and explore. One significant implication is the ways in which providing teachers with the autonomy, support, and structure to take on new instructional approaches was a key contributing factor to the success of this unit. Moreover, the provisions of autonomy, support, and structure were built primarily upon the prior relationships between the author and the participating teachers, wherein there was an established sense of trust and ability to express the need for and accept help. The author's attention and intention to meet the teachers where they were in their own professional development and learning supported the success of this research. The relationship between the teachers and author and the level of trust among them cannot be overlooked, and is arguably the factor that most readily facilitated this research.

Additional implications for practice include the questions of how to apply the concepts of an AS/SC approach to an arts-integration or design approach, both within a religious educational context and secular educational contexts. Integrating the arts into non-art domains can draw upon the principles of an AS/SC approach to teaching and learning, where the focus is on process and content, interdisciplinary integration, student reflection, teacher-student and peer collaboration, and drawing upon students' intrinsic motivation (Froyd & Simpson, 2008; Hardiman, JohnBull, Carran, & Shelton, 2019; Hood-Cattaneo, 2017). With research suggesting that arts-integration can increase student learning outcomes including transfer and long-term memory retention (Hardiman et al., 2019), it is possible that arts-integration can function as a vehicle through which educators can design AS/SC approaches.

It is also important to consider the implications of the findings that students in both treatment and control groups achieved equivalent levels of skill development and content knowledge. This finding works to dispel the notion, pervasive in prior findings in research on Jewish education, that teachers feel the urgency to prioritize transmission of knowledge over crafting a learning environment that students may find more relevant and applicable to their lives (Hassenfeld, 2018; Holtz, 2003; Krakowski, 2011; Pomson, 2011). Put differently, this study suggests that it is not necessary for Judaic Studies teachers to adopt an "either/or" stance, in which they need to focus either on transmission or on cultivating an engaging and relevant learning environment. This aligns with Hassenfeld's (2018) findings that the values of a transmission pedagogy, which include what Holtz (2003) calls the "enterprise of cultural transmission" (p.37) are not compromised by adopting a pedagogy of interpretive facilitation. The work here,

however, involves helping teachers consider and possible refine their orientations and interpretive stances in teaching Judaic Studies, which are often times based on deeply ingrained valued and ideologies that are rooted in personally held religious beliefs (Galili-Schachter, 2011; Hassenfeld, 2016, 2017, 2018; Holtz, 2003). Again, the importance of relationship and trust here is key to what Rachel argued was the "handholding" (personal communication, December 31, 2018) she needed in order to begin this process of professional and personal reflection.

Conclusion

The findings from the current study explored a possible way to address elementary school students' comparatively low levels of engagement in their Judaic Studies learning. Results showed that an AS/SC approach to instruction did not change levels of student engagement over time, but that students in treatment groups were significantly more behaviorally engaged, emotionally engaged, and less behaviorally disaffected than students in control groups. Both the construct of student engagement and the practices of AS/SC teaching can be considered "meta-constructs" (Fredricks et al., 2004). While student engagement is shaped, supported, or hindered by a multiplicity of factors, so too, AS/SC instruction is a multi-dimensional and complex approach to teaching and learning that often requires a paradigmatic shift of all stakeholders in a school to reconsider what teaching and learning look like and feel like. This current study reflects both the complexity of student engagement, the importance of engagement in religious education, and the deep work but potentially fruitful gains for both teachers and students, when teaching supports student autonomy and puts students at the center of the learning process.

Appendix A: Engagement Versus Disaffection with Learning, Student Report

PsycTESTS®

doi: 10.1037/t05755-000

Engagement Versus Disaffection with Learning: Student Report

Items

Behavioral Engagement

1. I try hard to do well in school.
2. In class, I work as hard as I can.
3. When I'm in class, I participate in class discussions.
4. I pay attention in class.
5. When I'm in class, I listen very carefully.

Emotional Engagement

1. When I'm in class, I feel good.
2. When we work on something in class, I feel interested.
3. Class is fun.
4. I enjoy learning new things in class.
5. When we work on something in class, I get involved.

Behavioral Disaffection

1. When I'm in class, I just act like I'm working. (–)
2. I don't try very hard at school. (–)
3. In class, I do just enough to get by. (–)
4. When I'm in class, I think about other things. (–)
5. When I'm in class, my mind wanders. (–)

Emotional Disaffection

1. a. When we work on something in class, I feel bored. (–)
   b. When I'm doing work in class, I feel bored. (–)
   c. When my teacher first explains new material, I feel bored. (–)

2. a. When I'm in class, I feel worried. (–)
   b. When we start something new in class, I feel nervous. (–)
   c. When I get stuck on a problem, I feel worried. (–)

3. When we work on something in class, I feel discouraged. (–)
4. Class is not all that fun for me. (–)
5. a. When I'm in class, I feel badly. (–)
   b. When I'm working on my classwork, I feel mad. (–)
   c. When I get stuck on a problem, it really bothers me. (–)
   d. When I can't answer a question, I feel frustrated. (–)

Note : Adapted from Wellborn (1991). The items added to the Emotional Disaffection subscale can be used to tap the more differentiated disaffected emotions.

Appendix B: Engagement Versus Disaffection with Learning, Teacher Report

PsycTESTS®

doi: 10.1037/t05757-000

Engagement Versus Disaffection with Learning: Teacher Report

Items

Behavioral Engagement

1. In my class, this student works as hard as he/she can.
2. When working on classwork in my class, this student appears involved.
3. When I explain new material, this student listens carefully.
4. In my class, this student does more than required.
5. When this student doesn't do well, he/she works harder.

Emotional Engagement

1. In my class, this student is enthusiastic.
2. In class, this student appears happy.
3. When we start something new in class, this student is interested.
4. When working on classwork, this student seems to enjoy it.
5. For this student, learning seems to be fun.

Behavioral Disaffection

1. When we start something new in class, this student thinks about other things. (–)
2. In my class, this student comes unprepared. (–)
3. When faced with a difficult assignment, this student doesn't even try. (–)
4. In my class, this student does just enough to get by. (–)
5. When we start something new in class, this student doesn't pay attention. (–)

Emotional Disaffection

1. a. When we work on something in class, this student appears to be bored. (–)
   b. When doing work in class, this student looks bored. (–)

2. a. When working on classwork, this student seems worried. (–)
   b. In my class, this student is anxious. (–)

3. a. In class, this student seems unhappy. (–)
   b. In my class, this student appears to be depressed. (–)

4. a. In my class, this student is angry. (–)
   b. When working on classwork, this student appears frustrated. (–)

5. a. When I explain new material, this student doesn't seem to care. (–)
   b. When working on classwork in my class, this student seems uninterested. (–)

Note : Adapted from Wellborn (1991). The items added to the Emotional Disaffection subscale can be used to tap the more differentiated disaffected emotions.

Appendix C: Children's Motivational Framework Questionnaire

Items included on the measure of motivational frameworks given at 7-8 years of age (adapted from Heyman & Dweck, 1998; Kinlaw & Kurtz-Costes, 2007). Items marked "A" were given at the first session and items marked "B" were given at the second session. Items were administered in a single, pseudo-random order. Items marked with an asterisk (*) were reverse-coded when making the composite measure, so that higher scores were always associated with greater endorsement of an incremental framework.

Intelligence domain

1. A: *Imagine a kid who things that a person is a certain amount smart, and they stay pretty much the same. How much do you agree with this kid? [5-point scale, 1=a little, 5=a lot]
2. B: *Imagine a kid who thinks that a person is a certain amount smart and stays pretty much the same. How much do you agree with this kid? [5-point scale, 1=a little, 5=a lot]
3. A: Imagine a kid who believes that you can get smarter and smarter all the time. How much do you agree with this kid? [5-point scale, 1=a little, 5=a lot]
4. B: Imagine a kid who thinks that people can get smarter if they work really hard. How much do you agree with this kid? [5-point scale, 1=a little, 5=a lot]
5. A: *How much would you like to do mazes that are very easy so you can get a lot right? [5-point scale, 1=a little, 5=a lot]
6. B: *How much would you like to do mazes that are very easy so you can get a lot right? [5-point scale, 1=a little, 5=a lot]

7. B: *How much would you like to spell words that are very easy so you can get a lot right? [5-point scale, 1=a little, 5=a lot]
8. B: *How much would you like to do math problems that are very easy so you can get a lot right? [5-point scale, 1=a little, 5=a lot]
9. A: How much would you like to do mazes that are very hard so you can learn more about doing mazes? [5-point scale, 1=a little, 5=a lot]
10. B: How much would you like to do mazes that are very hard so you can learn more about doing mazes? [5-point scale, 1=a little, 5=a lot]
11. B: How much would you like to spell words that are very hard so you can learn more about spelling? [5-point scale, 1=a little, 5=a lot]
12. B: How much would you like to do math problems that are very hard so you can learn more about doing math? [5-point scale, 1=a little, 5=a lot]

Appendix D: Sense of Relatedness Questionnaire

When I'm with my Teacher,

Item 1. I feel accepted.

Item 2. I feel unimportant.

Item 3. I feel like someone special.

Item 4. I feel ignored.

When I'm with my Classmates,

Item 5. I feel accepted.

Item 6. I feel unimportant.

Item 7I feel like someone special.

Item 8. I feel ignored.

Appendix E: Learner-Centered Rubric for Classroom Observation

Learner-Centered Rubric for Classroom Observations (based on Weimer, 2013)

#1: The role of the teacher (The teacher is not a conveyor of information; the teacher is a facilitator. It's the students who do the hard messy work of learning; they are not passive recipients of knowledge.)

Learner-Centered	Transitional	Teacher-Centered	Comments
Description: For the majority of the class session, the teacher does not simply convey information; the teacher facilitates significant learning experiences in which the students engage in the authentic work of the discipline and learn the information for themselves.	*Description: There is a mix of lecture and student engagement.*	*Description: The teacher does the vast majority of talking, summarizing, and analyzing.*	
1. For the majority of the class session, the teacher acts as a resource person (giving constructive feedback, eliciting different approaches, encouraging repeated attempts, etc.), working to support and enhance student investigations.	1. Occasionally during the class session, the teacher acts as a resource person, working to support and enhance student investigations.	1. The teacher does not act as a resource person during class, working to support and enhance student investigations.	
2. The teacher expects students to generate examples, review material, solve problems, lead discussions, critically analyze information, etc.	2. There are opportunities for the students to generate examples, review material, solve problems, etc., but these opportunities are limited or the purpose of the activities is not clearly connected to course material.	2. The class session consists predominantly of the teacher conveying information; students watch while the teacher works.	
3. Questions are welcomed by the teacher, and the teacher makes an effort to redirect to the rest of the class so that other students answer questions rather than the teacher.	3. Questions are welcomed by the teacher, but questions are mostly answered by the teacher rather than other students.	3. Questions from students may be entertained to a limited degree.	
4. The teacher ensures that the tasks students do in class are challenging.	4. The teacher ensures that the tasks students do in class are moderately challenging.	4. The teacher doesn't provide any opportunities for students to engage in challenging tasks. Alternately, the tasks that are provided are not very challenging.	

Learner-Centered Rubric for Classroom Observations (based on Weimer, 2013)

#2: The balance of power (The students have some control of the learning process.)

Learner-Centered	Transitional	Teacher-Centered	Comments
Description: The students appear to have a great deal of control over the learning that occurs in the classroom.	*Description: The students appear to have some control over the class.*	*Description: The students appear to have no control over the class.*	
5. Student questions and comments often determine the focus and direction of learning/instruction.	5. Student questions and comments are encouraged and answered, but those questions/comments do not determine the focus and direction of the class or prompt the teacher to change the current focus.	5. Student questions and comments are rare.	
6. Students have control over what content will be learned.	6. Students appear to have some choices with regard to content, but not a great deal.	6. The teacher appears to control all aspects of the class session.	
7. There is a high proportion of student talk related to content, and a significant amount of it occurs between and among students.	7. There is a high proportion of student talk related to content but usually between teacher and student.	7. There is very little student talk related to content; the teacher does most or all of the talking.	

Learner-Centered Rubric for Classroom Observations (based on Weimer, 2013)

#3: The function of content (Instead of "covering" the material, the students develop learning skills and learn how to think like those in the discipline.)

Learner-Centered	Transitional	Teacher-Centered	Comments
Description: The teacher does not overwhelm the students with a large amount of content. Content functions as a vehicle for skill development.	*Description: There is some evidence of the teacher and students addressing learning skills and using content to help students think like professionals in the discipline.*	*Description: Content is covered by the teacher and is not used in a way that promotes students thinking like professionals in the discipline. Learning skills are not developed by the students.*	
8. There is evidence that the teacher helps students learn how to ask good questions, how to read effectively, how to critically analyze information, how to write, how to study, how to summarize information, how to work effectively in groups.	8. There is some evidence that the teacher helps students learn how to ask good questions, how to read effectively, how to critically analyze information, how to write, how to study, how to summarize information, how to work effectively in groups.	8. There is no evidence that the teacher helps students learn how to ask good questions, how to read effectively, how to critically analyze information, how to write, how to study, how to summarize information, how to work effectively in groups.	
9. The tasks that students do in class seem to reinforce skill development (e.g., students need to read effectively in order to solve problems or analyze case studies in class; they need to work effectively in groups in order to be successful in the class).	9. Some of the tasks that students do in class reinforce skill development (e.g., students need to read effectively in order to solve problems or analyze case studies in class; they need to work effectively in groups in order to be successful in the class).	9. The students do no tasks in class that reinforce skill development; the teacher is primarily covering content.	
10. Content is utilized in such a way to provide opportunities for students to think like professionals in the discipline.	10. Content is utilized in such a way to provide some opportunity for students to think like professionals in the discipline.	10. Content is not utilized in such a way as to help students think like professionals in the discipline.	

Learner-Centered Rubric for Classroom Observations (based on Weimer, 2013)

#4: Student responsibility for learning (The teacher's role is to be approachable, caring, consistent, and make sure the student experiences consequences when he/she fails to live up to the responsibility.)

Learner-Centered	Transitional	Teacher-Centered	Comments
Description: The classroom atmosphere is such that students are held responsible for their learning and take that responsibility willingly.	*Description: The teacher does a relatively good job of ensuring that students are responsible for learning and that there exists a warm classroom climate, but the efforts fall short in some ways.*	*Description: There is little to no evidence that students take responsibility for learning.*	
11. Students are expected to have prepared before class and there is evidence that the majority in fact have actually prepared (e.g., they are able to answer questions about the prior information, they can apply the prior information to new situations, they ask questions that show that they've prepared beforehand).	11. Although students are expected to have prepared before class, many have not and there are no consequences.	11. There is little to no evidence that students were supposed to prepare anything for the class session.	
12. The teacher is patient and caring, knows all or most students by name. The teacher listens carefully to students. The teacher treats students fairly and consistently (in other words, no one gets "special treatment," there is consistency between what the teacher says and what he/she does).	12. The teacher is mostly caring, but there may be a few issues, such as some students getting special treatment, not knowing several students' names, occasionally seeming to not listen carefully to students, showing minor impatience occasionally. Alternately, the teacher appears patient and caring, but he or she interacts so little with students that it is difficult to evaluate other dimensions like the extent to which the teacher listens carefully, knows all of the students' names, etc.	12. The teacher does not exhibit patience or a caring attitude. The teacher appears to know very few or no students' names except for possibly a "favorite" or two.	
13. All or almost all students put effort into the class (e.g., they arrive on time, they're not on their computers or cell phones during the class, they participate in class when asked). If some students choose not to put in effort, the teacher is aware and takes action to engage them.	13. The majority of students put effort into the class (e.g., they arrive on time, they're not on their computers or cell phones during the class, they participate in class). However, when they fail to put effort in, there are no consequences (the teacher seems to not notice or ignores the behavior).	13. The majority of students are not paying attention or putting effort into the class (e.g., many students are late, they're on computers, etc.). The teacher does not seem to notice/care.	
14. Expectations are high, and students appear to respond positively. The students support each other in achieving those high expectations.	14. Expectations are neither high nor low. OR, expectations are high and some students respond positively whereas others appear to be frustrated and struggling.	14. Expectations are low. OR, expectations are high and students respond negatively.	
15. There is a positive climate in the classroom (e.g., mutual respect, good rapport between the students and the teacher and among the students, students listen to each other and respond to each other respectfully).	15. There is an average climate in the classroom. For example, the students are polite, but they don't seem to listen or respond to each other. Alternately, there is little opportunity to judge the climate because there is little interaction in the class.	15. There is a negative climate in the classroom. For example, students may be openly hostile to each other or the teacher. Students pay attention to the teacher but tune out when other students talk. Students "clockwatch" in the classroom.	

Learner-Centered Rubric for Classroom Observations (based on Weimer, 2013)

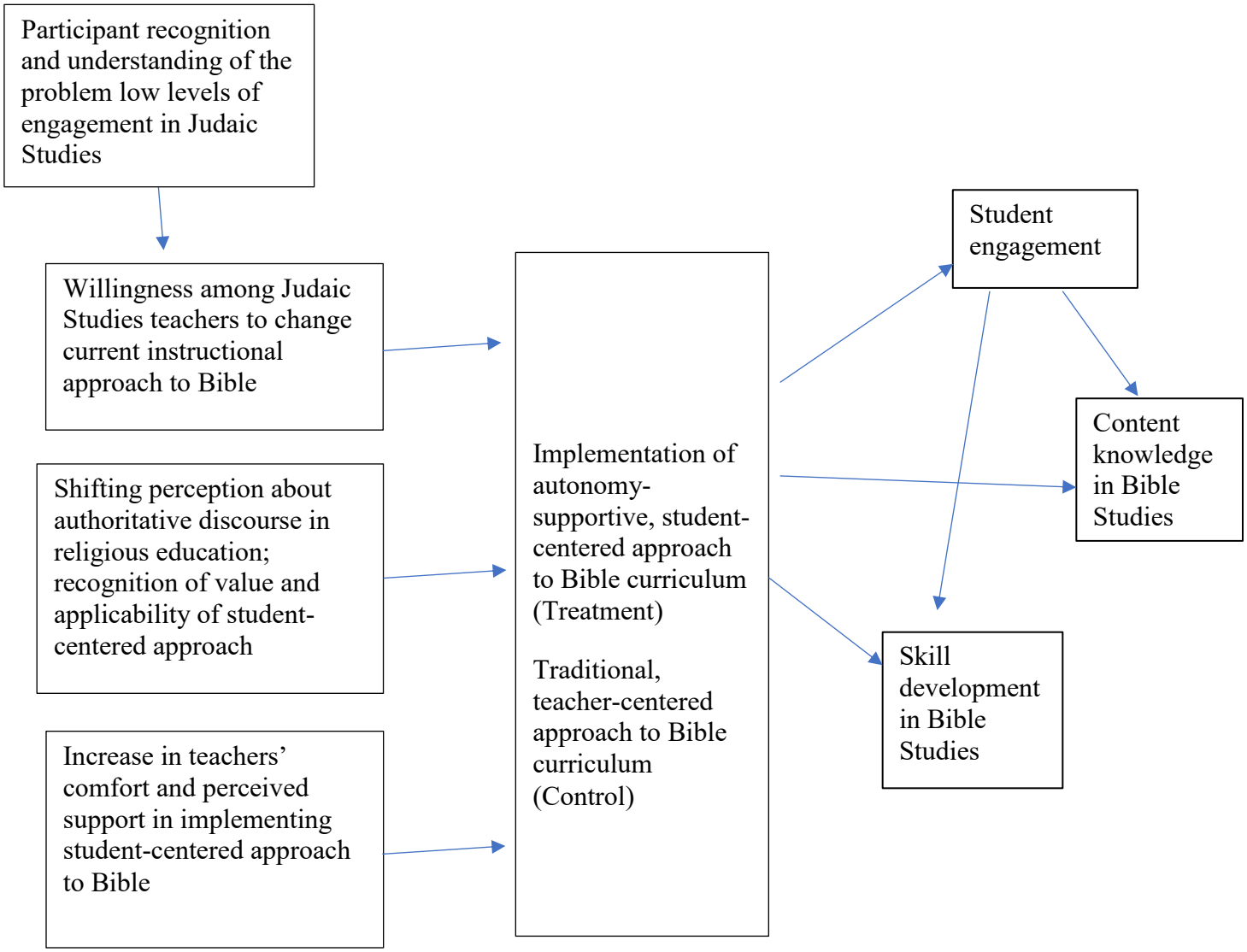
#5: The learning potential in assessments (Evaluation is more than just getting a grade. It promotes learning. The teacher's job is to come up with ways to use evaluation to promote learning. Self-assessment and peer assessment should be promoted. The traditional kinds of assessment are restructured to promote learning.)

Learner-Centered	Transitional	Teacher-Centered	Comments
Description: The teacher uses assessments to promote learning in creative ways.	*Description: There is some effort to use assessments to promote learning but there are missed opportunities as well.*	*Description: The learning potential in assessment is ignored.*	
16. Students have opportunities for self-assessment/reflection (e.g., reflection minute papers, reflection about assignments, reflection connecting material in class to the students' personal lives, asking questions such as "How do you know you're correct?").	16. There is some opportunity for self-assessment/ reflection in the class.	16. There is no self-assessment or reflection.	
17. There is student peer assessment during the class (e.g., the teacher uses questions such as asking for one student to restate and comment on another student's answer, the students evaluate each others' work.).	17. There is some evidence of peer assessment during the class.	17. The teacher is the only one assessing work (for example, the teacher tells the students when they are correct or incorrect).	
18. The teacher uses various formative assessment techniques during class (e.g., ticket out the door, clickers, group work) and acts on those assessments to improve student learning and move the class forward.	18. The teacher uses some formative assessments (e.g., clickers, worksheets, asking questions, etc.), but it's not clear that these assessments improve student learning or move the class forward.	18. There is no use of formative assessments.	
19. The teacher emphasizes the importance of learning and understanding the material (not for points or grades).	19. The teacher puts some emphasis on the importance of learning and understanding the material, but also places some emphasis on grades (e.g., the teacher says things like, "You'll need this for the test," "You need this information to get points on the assignment").	19. The teacher and students are focused on grades (e.g., "Will this be on the test?", the teacher says things like, "You'll need this for the test," "You need this information to get points on the assignment").	

For each of the 19 categories, circle the description that best matches the observation. Add up each column and multiply the sum by 2 for learner-centered, 1 for transitional, and 0 for teacher-centered. Then add up the total score.

Score	Type of Class
0-13	Teacher-centered
14-25	Transitional
26-38	Learner-centered

Appendix F: Theory of Treatment and Logic Model



Theory of Treatment, Causal Diagram

Logic Model

Inputs	Activities	Participation	Outputs	Outcomes		
				Short Term	Medium Term	Long Term
Access to all Bible curricular materials from 3rd, 4th grade Access to laptops and iPads Support from other Lower School faculty Support from Lower School Principals and Head of School Space and time for teachers to meet and plan unit 3-day professional development workshop (6 hours per day) on autonomy-supportive, student-centered pedagogy	Read and discuss the needs assessment findings (Weissman, 2017a) indicating comparatively low levels of engagement in Judaic Studies Development of 2 units (1 per participating grade) of student-centered, autonomy-supportive Bible curriculum Collaborative articulation and agreement of expected skill and content benchmarks for each Bible unit Collaborative development of assessment to measure skill development and content knowledge Implementation of autonomy-supportive, student-centered Bible unit in one class in 3rd, and 4th grade	6 Judaic Studies teachers from 3rd, 4th grade 3rd, 4th grade students (approximately 15-20 students per grade)	2 autonomy-supportive, student-centered units of Bible curriculum (1 unit each in 3rd, and 4th grade) Articulated skill and content benchmarks for Bible units	Shifting perception among participants about authoritative discourse in religious education, from the necessity of a transmission-based approach to recognizing the value and applicability of student-centered approach Judaic Studies teachers' increased comfort in implementing a student-centered approach to Bible Increased adoption of autonomy-supportive, student-centered approach to Bible education and Judaic Studies	Increased student engagement in Bible and Judaic Studies	Increased skill development and content knowledge in Bible and Judaic Studies

Assumptions: Teachers are willing to reconsider their approaches to teaching Bible; Teachers will put forth the effort necessary to implement a new pedagogic approach; 3 days of PD will provide teachers with adequate knowledge and self-efficacy to implement unit; Measures of engagement, skill development, and content knowledge will accurately measure constructs **External Factors:** Change in support from Administration; Change in school personnel; Circumstances prohibiting participants from completing participation; Parent refusal to consent to their child's participation

Appendix G: Summary Matrices

Research Question, Outcome Evaluation	Indicator	Role of Indicator	Data Sources	Frequency	Responsibility
Was there a greater increase in difference in student engagement for students who learned a unit of Bible through an AS/SC approach in comparison to students who learned the same unit through a T/TC approach?	Student engagement	Mediating/ Outcome	Engagement vs. Disaffection with Learning survey, Student report (Skinner et al., 2008a)	Collected twice: Once prior to intervention and once after intervention is completed	Author
Was there a greater increase in difference in skill development for students who learned a unit of Bible through an AS/SC approach in comparison to students who learned the same unit through a T/TC approach?	Skill Development	Outcome	Grade-level unit assessments (1 teaching-team designed assessment per participating grade level: 3rd, and 4th grade)	Collected twice: once prior to intervention and once after intervention is completed	Author
Was there a greater increase in difference in content knowledge for students who learned a unit of Bible through an AS/SC approach in comparison to students who learned the same unit through a T/TC approach?	Content knowledge	Outcome	Grade-level unit assessments (1 teaching-team designed assessment per participating grade level: 3rd, and 4th grade)	Collected twice: once prior to intervention and once after intervention is completed	Author
	Shifting perception among participants about authoritative discourse in religious education	Mediating	Semi-structured interviews Teacher reflection journals	One interview at the culmination of the intervention Weekly during intervention; Once after intervention completion	Third-party interviewer Participating teachers
	Increased adoption of autonomy-supportive, student-centered approach to Bible education and Judaic Studies	Mediating	Learner-Centered Rubric for Observation (Weimer, 2013)	Twice weekly for the two weeks following intervention completion	Author Trained observers

Research Question, Process Evaluation	Process Evaluation Indicator	Data Source(s)	Data Collection Tool	Frequency	Responsibility
To what extent did participating teachers deliver a full implementation of the intervention program, as measured by teacher attendance logs, complete delivery of curricular components of the chosen unit of Bible instruction, and adherence to an AS/SC approach for the duration of the unit?	Sustained teacher participation in implementation of AS/SC intervention	Participating Judaic Studies Teachers	Attendance log Daily check-in	Daily throughout intervention	Author
	Student participation in intervention	Parents of 3rd, and 4th grade students	Parent Consent form and Student assent form	Ongoing during recruitment	Author
	Implementation of AS/SC approach to unit of Bible instruction	Participating Judaic Studies Teachers	Learner-Centered Rubric for Observation (Weimer, 2013)		Author Trained observers
	Full dose of delivery of entire unit of Bible instruction	Participating JS teachers	Checklist of curricular unit components	Weekly during intervention	Participating teachers
To what extent did the participating teachers enjoy teaching through an autonomy-supportive, student-centered (AS/SC) approach for a unit of their Bible curriculum, as measured through semi-structured interviews and participant reflection journals?	Participating teachers' positive attitude and self-efficacy towards implementation	Participating Judaic Studies Teachers	Participant reflection journal Semi-structured interviews	Weekly during intervention One interview at the culmination of the intervention Survey completion at culmination of intervention	Participating teachers Third-party interviewer
What barriers caused by scheduling or staffing structures, if any, were identified by participants or by the author, as hindering the process of program implementation?	Presence of barriers to implementation of AS/SC unit of bible	Participating teachers Author	Reflection journals Semi-Structured interview Field notes	Weekly during intervention One-time at the end of the intervention Ongoing during intervention	Participating teachers Third-party interviewer Author

Appendix H: Interview Protocol

1. What was the experience of this summer's professional development like for you?
2. What was your feeling going into the professional development?
3. Did you change your perceptions about teaching Judaic Studies after the professional development? How so?
4. How did you grow up learning Judaic Studies?
5. What was difficult about the professional development?
6. What was beneficial about it?
7. What would you have changed about it?
8. What was the experience of implementing the AS/SC unit of Bible?
9. What were the challenges of this unit?
10. What were the strengths of the implementation?
11. What, if any, were barriers to the success of the implementation?
12. What would you have changed about your implementation of the unit?
13. Do you think that an AS/SC approach to Judaics or Bible is a sustainable and reasonable approach? Why or why not?
14. Can you see yourself taking this approach and using it in the future? Why or why not?

Appendix I: Interview Codebook

Topical Statement Category	Definition	Example
Classroom activities	Classroom activities refers to specific descriptions of observable activities during classroom time.	
Intervention unit implementation activities		I needed to get skills done, I could have them in the whole group or not but if I had them in the whole group then they weren't taking care of the project, and both were going on at the same time, so it was just easier to split them.
Typical unit implementation activities		Like review them. I'm very- what's the word – I mean I'm very usually I'm really good about that. I'm really into that. I really try to find time to really make sure that I have the skills really reviewed and they know it really well. It doesn't mean that I don't teach the concepts or have discussions, but like I always - no matter what I have planned that day, I always start off with let's review the skills, let's review the vocab, let's review the shorashim. If it t takes me 3-5 minutes if not less, but I feel like I have to do that and I feel good about it.
Affective reflections of teacher	Episodes where teacher reflects on how she felt about unit implementation	There were parts of it that were very – a little stressful for me. But on the whole, it was like sort of exciting.
Reflections about student affect	Episodes where teacher reflects of her perceptions of how the students felt about unit implementation	They got so into the discussion about the unit and they really knew it well. The concepts really really well. And

		they were obviously really excited to discuss their projects. 1
Evaluation of implementation	Episodes that involved evaluative comments about the implementation of the unit	
Evaluating benefits	Episodes that involved evaluating the beneficial parts of the unit	As a teacher, it definitely made me try out new things, which now I can use as I want to. I saw what worked, what I liked, didn't like. So I definitely tried out new things. What I really like is that we left the unit with the theme. I loved that. So I'm like, if I can do that for every unit so that I know no matter what the skills, no matter what concepts they know, I know they're going to get that theme.
Evaluating challenges	Episodes that involved highlighting the challenging parts of the unit	Again, not having everyone doing the same thing was a time constraint because I'm trying, I really like to keep up, and it's just like, we like to work together, it's a lot more fun, and we just do it together. So not to be on the same page as everyone else was definitely hard for me.
Evaluation of student achievement and understanding	Episodes that involved evaluating the perceived level of student understanding and achievement	Not in the skills. More in the content. They definitely were thinking about it more. And Not all kids, obviously. Certain kids will always be themselves no matter what, I feel like, but at least basics, everybody really had drilled into them.
Looking and planning ahead	Episodes where the teacher thought about how to apply this mode of instruction in the future	I do think that if I would have buy-in from the other teachers I would try to implement some stuff, like stepping back from each unit thinking about the theme. And then if there is something that works with us, maybe putting something in, and moving stuff around

		a little bit. I would not right now do a massive overhaul. I would still keep the same skills that we do. They all build on each other and would be extremely difficult to change, probably not even worth it and they're very good, we've worked years on this. I don't even think that's necessary. But I do think that given time to think about it, there are other pieces I would put in, given teacher buy in. As long as I had, you know, teacher buy-in. But I think I would, the group I work with is always open to new stuff, if I said, let's take our lessons to the next level.
Reflections on teacher change	Episodes where teacher reflected on the experience of changing educational practices	We've made tons of change. Even this year we do so much more on the iPad, if you would have told me that 3 years ago, I would have said, when? We're done, we're full. The lessons book is only 5-6 years old. Before that, I would have said, what do you mean lessons? We're full. We spend all our time teaching. It enhances it. It goes hand in hand. It's not a separate new thing. I would have told you we don't have time in our schedule but we do, and now they know the Amidah so much better. And it's really. Are you kidding? We used to spend 10 minutes a week on it. And it's like, How do we have time? I don't know. But we do. Other things we do less of, but it's okay, it's even-ing out.

Appendix J: Resources for Designing an AS/SC Unit

Our Chumash Exhibit

1. What part of this perek do you want to focus on for your project?

2. What ideas do you have to show all that you learned?

3. Do you want to work in a group, or do you want to work on this project independently?
   - By myself
   - In a group

- Either

Unit Guide

Essential Question: An essential question should inspire students, require them to conduct research and relate to a real-world issue.

Entry Event: How will you start your unit? What will be the hook that sparks your student's interests?

Products: What do you want students to do/write/create/build?

Individual:

Group:

Learning Goals: What do you want your students to learn?

Curriculum content: concepts, vocabulary, readings, etc.

Key Skills: Identify key skills (to be assessed):

Skills to develop:

Skills to master:

Exhibition Venue and Plan: Where and when will the exhibition take place? How will the exhibition be promoted? How will your students exhibit their work? Who will you be inviting?

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Biographical Statement

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